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## ORIGINAL DEPARTMENT.

### COMMUNICATIONS.

#### A RÉSUMÉ OF THE TOBACCO QUESTION.

If the importance of a subject were to be estimated by the attention it has commanded, tobacco would hold a foremost position; and judged by the bitterness of its opposition, would be the greatest enemy that menaces the health of humanity or endangers the stability of society. It has been opposed by moralists, physicians, orators, preachers, societies, and synods. The subject, entering largely into scientific, religious, and miscellaneous literature of the present, is found fossilized in fancies of centuries past. Since the first opposition that followed the introduction of the tobacco habit into England by Raleigh, until the present time, it has constituted a theme of unending controversy. Yet notwithstanding threatenings from the pulpit and blasts from the press, it has seemed proof against attack, and has apparently grown in a ratio to its difficulties, so that tobacco is now, next to salt, the most universally consumed of all substances—animal, vegetable, or mineral. After its introduction into Europe, while it gained a ready popularity among the Spaniards, it was received with anything but favor in England, where there was at once recruited a standing army that has waged unceasing warfare against tobacco. So intense was the repugnance to it that one of the early writers referred to it as "hellish, damned, and devilish;" and among its distressing effects it was supposed to "exsicate the windpipe, lungs, and liver; annoy the milt, and scorch the heart." Its production in England was restricted by a law in

1660 to a small amount for medicinal purposes.

One of the foremost opponents was King James, who was a violent enemy to the use of tobacco in any of its forms, objecting to it chiefly, it seems, because of its first employment by savages, and again on account of its uncleanness. King James handled the subject without gloves, and wrote of the pipe as "a perpetual stinking torment, the black fumes thereof nearest resembling the Stygian smoke of the bottomless pit."

Coming up to later times, tobacco had made a great advance in popularity, and its use was very common among literary men in the days of Goldsmith and Johnson, who both smoked. Milton, Addison, Swift, and Burns also wrote under the influence of tobacco. Carlyle was greatly addicted to the habit. Charles Lamb's physician compelled him to abandon smoking, and while enjoying his last pipe he penned his famous Ode to Tobacco.

Singularly, Shakespeare makes no allusion to the tobacco habit or the substance itself, unless the "deadly hebenon," the "leprous distilment" which was poured into the sleeping king's ear (Hamlet, Act I, Scene V.) was the oil of tobacco, as some commentators have understood it.

The name *nicotiana tabacum* is said to have been derived from that of Jean Nicot, who took seeds from Portugal to France in the year 1560, and from tobago, or tobacco, the pipe of the natives in Yucatan.

Of the history of this captivating weed nothing is definitely known before the time of the early navigators to this continent, when it was found in Central America, being well-known to the tribes inhabiting the new-found world. There

appears to be some traditional evidence of its previous existence in the East, but positive knowledge is wanting to establish the fact that its use or culture were known prior to the discovery of America. The first analysis of tobacco was made in 1809 by Vauquelin, and the active principle of nicotine isolated by Posselt and Reinmann in 1828. The proportion of this principle is variously stated as being from two to eight per cent., as high as twelve per cent., and other authorities place the proportion of nicotine at one-tenth of one per cent.

Of the various modes of taking tobacco, snuffing has been popular in times past among the politer classes, particularly in Europe, but of late years has been gradually superseded by smoking and chewing, and in this country has become almost obsolete. The practice of "rubbing" is very common among the poor whites of the South, and in mining localities of the North. Along the mining districts of the Monongahela Valley an enormous quantity is consumed in this way, every grocery-store having its snuff caddy. Foreigners are far less habituated to the habit than American women. The greatest number of tobacco users prefer to smoke the weed in pipe or cigar, or chew it in the form of the manufactured plug. In some of the manufactured tobaccos found in the shops, the tobacco forms the smallest part of the article sold; such substances as elm bark, liquorice, figs, glycerine, molasses, and aromatics entering into it in proportions which vary from twenty-five to ninety per cent. Few of the tobaccos probably are free from adulterations, some of them hurtful, others being innocuous.

The writer learns from responsible sources that the practice is not uncommon among cigar-makers to syringe cheap fillers with narcotic substances. A dark-colored wrapper then being used, the deception is complete, and the inferior article passes for a higher-priced cigar, which in its appearance it closely resembles. It is, therefore, possible that the poisonous adulterations in tobacco and cigars may often be responsible for deductions made in regard to the effects of smoking and chewing.

An agreeable flavor is imparted to cigars by the Tonka bean and rum; and they are made to burn more rapidly by the addition of nitrate of potassium. The odor of smoking tobacco is improved by deer's tongue (*Liatus Odoratissimum*), which grows in the Southern States, and contains cumarin the active principle of Tonka bean. The most common adulterative of snuff is lime.

Tobacco has a peculiar taste, which to one un-

accustomed to it is extremely novel and unpleasant. Smoked or chewed, it produces a flow of saliva and of the gastric juice. Where no tolerance has been established, it may cause nausea and vomiting. The intestinal secretions are excited, and peristalsis induced.

There are some diuretic and diaphoretic effects produced. The pulse is accelerated, and the face may be slightly flushed—more blood is sent to the brain, and any mind-work is more easily performed. A person before dull and listless becomes more cheerful and talkative.

The symptoms are those of a gentle stimulation which is not followed by depression. The inclination to sleep is for the time removed. These facts have been deduced from a small quantity smoked or chewed. When the amount used is increased and continued, digestion will be impaired, the circulation disturbed, the action of the heart rapid, irregular, and feeble, constituting what is known as the "tobacco heart."

Constipation is likely present, from atony of the muscular wall of the intestine.

The condition of a person using tobacco beyond the bounds of moderation is characteristic. He has a nervous, anxious manner, easily loses his self-possession, is excessively sensitive and impressionable; he cannot remain composed, a slight emotion produces extreme flushing of the face, with a sense of heat; he becomes embarrassed from the least cause. On any occasion of excitement, respiration is rapid and suppressed, and the heart is in a tumult, beating rapidly and irregularly; the increase in the number of beats on assuming the erect from recumbent position is exaggerated and sympathetic; saliva, which the subject swallows, constantly pours into the mouth.

This train of symptoms is observed particularly in those who have a tendency to vascular excitation, while in persons of a sluggish, bilious temperament, dyspepsia, a disinclination to manual or mental work, a morose frame of mind, poor physique, sallow skin, and loss of vivacity, are the conspicuous symptoms of nicotism.

When the tobacco is swallowed in poisonous quantities, it causes severe burning in the throat, and creates the most distressing nausea and sinking sensation at the stomach, together with purging and general muscular relaxation. After a brief stimulation, the circulation is depressed, the pulse becoming feeble and irregular, and may be very slow—reduced, perhaps, to fifty or forty.

The effects of tobacco in small and large doses are thus stated by Fiske, in his treatise on also

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hol and tobacco: "A small stimulant dose quickens the pulse; a poisonous or narcotic dose renders it frequent and feeble, and finally reduces the frequency." A dose of pure nicotine stops the heart. The face is pallid, and the skin cold and damp. There is dimness of sight, with contracted pupils, "which are at last generally dilated." (Ziemssen's *Cyclopedia*, article Nicotine.) The temperature is reduced. The subject may retain sensibility or be in an apathetic or unconscious condition. Convulsive twitchings may occur before death.

As to the effects of tobacco on the sexual functions, it stimulates in small, depresses in large quantities.

Acute cases of poisoning from tobacco, smoked, snuffed, or chewed, are not common. A case is recorded where death occurred from smoking seventeen pipes in succession, and another in which a half-ounce chewed resulted fatally. (Ziemssen's *Cyclopedia*, article Nicotine, Vol. xvii.)

Its excessive use in any of the three forms may sometimes produce slight forms of poisoning, evidenced by nausea, weakness, transient pallor, etc., and long continued may excite disturbance of a functional character in the circulation, nervous system, and nutrition.

Several cases are on record, one occurring some time ago in Norwich, Conn., in which the abuse of tobacco gave rise to most extraordinary symptoms. The following is from the *Norwich Bulletin*: "Then followed a season of derangement and visions, less terrorizing than the alcohol frenzy, but annoying and remarkable. He saw black flies in myriads in the room, millions of golden-hued beetles. He saw crowns, armor, and bric-a-brac of all sorts. During one entire day the atmosphere was yellow; another, cloudy veils shut out from his view surrounding objects."

Three cases of delirium tremens have been reported in St. Thomas' Hospital, London, attributed to abuse of tobacco.

The action of tobacco when applied to an abraded surface is similar to that from other modes of administration, nausea, muscular relaxation, depression, etc., being produced. Many cases of poisoning have occurred from the external application of tobacco in the treatment of skin diseases and extreme and fatal depression has followed the injection of tobacco into the rectum.

The effects of tobacco upon the human organism obviously depends upon the quantity taken.

A series of articles which appeared in the *Atlantic Monthly* many years ago, by James Parton, entitled "Does it Pay to Smoke?" evidenced

such confusion in the mind of the author as to the physiological effects of tobacco and its relation to the health and happiness of man, that a little treatise by James Fiske, of Cambridge, Mass., was afterwards published, correcting the misstatements of Mr. Parton.

Mr. Fiske laid great stress upon the fact that large and small quantities of tobacco act in modes directly opposite to each other, that narcotics in small doses do not act as depressants, but as stimulants, producing the exact reverse of a narcotic effect, as generally understood.

That depression follows stimulation is a favorite argument with those who are convinced that tobacco is absolutely and unqualifiedly injurious, while they forget that the events following stimulation depend upon the degree of the stimulation. Reaction, it is true, occurs, but reaction is not necessarily depression. Mild stimulation will be succeeded by a return to the normal or merely a cessation of the action of the stimulant. The reaction from over-stimulation will fall below the normal, constituting depression.

These facts are generally so well understood that it is useless to dwell upon them. We know to stimulate a muscle by exercise it will be developed; a little mustard may be taken with meat with positive benefit, and it is equally true that too much exercise and too much mustard will, in the one case, weaken the muscle, and in the other impair digestion.

Anstie refers to the difference between a mild rubefacient and a blister applied to the skin—the one followed by no depression, the other unmitigated depression from the start. "From good wine in moderation there is no reaction whatever." (Brinton's *Treatise on Food and Digestion*.)

It has been a question as to what amount constitutes excess in the use of tobacco, or rather what is not excess. Those are undoubtedly cases of abuse mentioned by Lizars in his "Use and Abuse of Tobacco," where the subject "became partially but generally paralyzed in mind and body," and ultimately died a driveling idiot or an imbecile paralytic; also those are certainly instances of excess mentioned by other writers, in which the unfortunate victim became blind, deaf, cowardly, and emasculated. The limit of moderation can only be fixed according to the peculiarities of each individual.

With most persons, "three cigars or half a dozen pipes will not be excessive" (Ziemssen's *Cyclopedia*, article Nicotine), but this quantity no doubt can be exceeded by many without symp-

toms of nicotine poisoning developing. There are tobaccos so strong that they are altogether unfit for use, and a proper selection should be made, as in anything else. The symptoms produced by tobacco differ with the varying susceptibilities of different persons—some use it with impunity, others must employ it cautiously.

"Doubtless there are many persons who use tobacco in one or more of its forms who experience few or none of its evils, and whose constitutions seem proof against its mischievous effects." (National Dispensatory, Stille & Maisch.)

The constitution of the person is an important element in the estimate of what is a moderate quantity.

The effects of tobacco will also be greatly modified by the habits and life of the individual. What would be harmful in a man of sedentary habits, would perhaps give no annoyance if the person led an active out-door life. The writer learned from a student of medicine who suffered from palpitation of the heart and a group of unpleasant symptoms believed to be caused by the abuse of tobacco, that during the summer vacation, with active exercise and entire change of habits, these symptoms altogether disappeared; the equilibrium of the circulation was restored, notwithstanding a greater quantity of tobacco was consumed.

There are instances which go to show that in certain persons under particular conditions, the poisonous effects of tobacco could hardly be produced by any ordinary quantity, smoked or chewed. The writer has seen three cases in which the individual habitually swallowed the juice from the tobacco without any apparent injurious results. One, a most disgusting case, was observed in the insane department of Blockley Almshouse, in a patient whose passion for the substance was so strong that he not only ate what tobacco he could get, but had at different times availed himself of the opportunity, when unseen by the attendants, to take the contents of a cuspidor used by other chewers. Of the other two cases, one was a farmer, the other a shoemaker, both well advanced in life, and, as far as they knew, suffered no inconvenience from the habit which they had long practiced.

Sailors, whose health is proverbial, are greatly addicted to the pipe. It is the one great remedy above all others that they resort to to relieve the tedium of their lives, and they use it far in excess of what would usually be considered a limit of safety. Their rugged experiences seem to purchase them an immunity against its poisonous

effects. It is said that Burmese children smoke while yet in their mother's arms, and it does not appear to impair their health or retard their development. Again, its excessive use is associated with physical superiority in the rural Turks, and remarkable longevity in our Southern darkies. Notwithstanding these facts, moderation is the only line of security from the unpleasant effects of tobacco for the general run of persons; and there are those who, perhaps, from an idiosyncrasy, suffer even from its most temperate use.

The question of the harmful effects of tobacco has been a fruitful theme of controversy, and having a social and moral aspect, it has had a range wider than purely scientific discussion. The shelves of every library attest the fertility of the subject. From the despondent magazine article to the scientific treatise, it has been handled in every conceivable way, and from every possible standpoint.

It has been charged that it is useless and an unnecessary expense to the consumer, that it is filthy, degrading, and injurious. These, however, are terms of the argument, and facts must be shown to prove them to be always justifiable. As to whether the use of tobacco is filthy, degrading, or demoralizing, depends upon the manner of its employment. It is unpleasant to find a person using tobacco with a total disregard for cleanliness, for time, place, and other circumstances, and it is equally disagreeable to see one commit endless improprieties at the table. That "everything should be done decently and in order," applies as well to the use of tobacco as to other matters.

The statement that tobacco is injurious, is an obvious one, and might be made of any substance in nature in this unqualified way, being in one sense true, in another wrong. It would be as difficult to show that tobacco is never in any quantity harmful, as to prove that in moderation as a rule it is ever so. Certainly the only middle-ground, and the only question or issue of interest in the matter, is whether moderation in its strictest sense tends to injure or destroy either mind or body.

Chewing, no doubt, in many persons, on account of the frequent spitting, may weaken the system, though as a rule its use in this mode, if not carried to excess, is not incompatible with good digestion and the highest state of health, as we frequently find in inveterate chewers. Smoking is the pleasantest, cleanest, and likely the proper way to use tobacco. One form, however, the cigarette, is exceedingly objectionable. These



cigarettes, composed often of the vilest material, are enclosed in paper, the smoker inhaling the fumes of the burning paper and tobacco. The cigarette is also dangerous from the fact that the smoker can fill up interstitial moments in which a cigar would not be lighted, thus leading to the greatest excess. In the *Philadelphia Weekly Times* there appeared in the issue of June 4, 1881, an interview with several leading physicians of Philadelphia on the rapidly-growing practice of smoking cigarettes. Dr. Bartholow thought: "It is an evil that will tend to the deterioration of the race. It is the most pernicious form in which tobacco is used, and produces impaired digestion, small and poor muscles, and lack of capacity for sustained effort." Drs. Da Costa, H. C. Wood, and Pepper, believed it a most harmful practice.

The pipe is in many respects preferable to the cigar. The smoker can certainly derive a greater degree of comfort from it, and has the advantage of being more cleanly, if properly attended to. The common clay pipe, which can be bought for a few cents a dozen, is the best. The pipe, when used for a few times, should be thrown away or thoroughly burned out. Nothing is more unpleasant than the odor of an "old pipe," in which has collected the acrid principles of the tobacco. By placing a clay pipe among live coals, in a few minutes all the vegetable matter and stain is burned out, and it is as pure as when new. Many smoke vile cigars or a bad pipe, and really never learn the comfort and luxury of a mild, clean smoke. It is these persons who sometimes betray evidences of nicotine poisoning, and who furnish the material for the argument that tobacco is an evil. To them, unquestionably, it is, for they are ignorant of its proper use.

It has been charged against tobacco that it produces decay of the teeth. This popular idea, however, does not agree with authorities on the subject, who attribute, on the other hand, remarkable preservative powers to tobacco. Women who practice the filthy habit of "rubbing" usually have beautiful teeth, which are not liable to early decay. Toothache is more common among women than men, which is likely due to the fact that tobacco, with the exception of "rubbing," and occasional smoking among the lower classes, is not used by women. Indeed, one who chews tobacco rarely has toothache. Teeth have been kept in nicotine for months perfectly sound. Tobacco has been assigned as the cause in certain disorders of vision.

In London *Lancet*, 1863, p. 654, three cases of amaurosis were cited by Wordsworth as being due

to tobacco excess. In a discussion afterwards as to the relation of the tobacco habit to amaurosis, Ernest Hart asserted these cases to be inconclusive, and denied that tobacco produces optic atrophy. In *Lancet*, 1863, p. 748, he says: "Optic atrophy is a diseased condition which is found in children, women, and abstinent persons, as well as in those who smoke tobacco. It is not found in thousands of hard smokers, and some seriously affected with it never tasted tobacco. We know it to be the result commonly of tumors, effusions, and alterations in brain structure certainly unconnected with smoking. It is obvious that the onus of proof lies with those who assert this singular pathological connection."

The best authorities seem to regard the disorder known as tobacco amaurosis as purely functional, transient, and very amenable to treatment.

## PART II.

As the use of tobacco may be associated with almost any known malady, it is not surprising that it has been assigned as the cause in so many and various disorders. Coincidences are often mistaken for causes, and no doubt phenomena attributed to tobacco have been confounded with those of co-operative causes. "If it is explained on the ground of excessive smoking that students are near-sighted, it is difficult to account for the fact that sailors smoke more and are far-sighted, the result in each instance being due to the manner in which the eyes are used."

It is held by some that tobacco excess may produce forms of insanity, but it is very difficult to determine from statistics that this is true. Instances of certain mental disorders have again and again been cited as being in relation with the habit. But in many of these hospital cases the responsibility was attached to tobacco, apparently for the purposes of a tabular statement, and with a disregard to other elements present.

Of 186 cases noticed in a report of the Bloomingdale Hospital for the Insane, one was thought to be due to the "too abundant use of opium and tobacco." In the report of the State Lunatic Asylum at Worcester, Mass., for 1833, in 164 cases of insanity one was attributed to tobacco. In 1837 and 1838, out of 855 observations, one case was reported from tobacco excess, and in the report for 1835 one case due to "intemperance and snuff." In the yearly reports of the Pennsylvania Hospital for the Insane, in 1858, of a summary of 3,058 cases, 6 were believed to be caused by tobacco; "but in the next ten years though the number of

observations had been doubled, but six cases were given in the report for 1868 that were due to its use." In hospital cases where tobacco excess may only be one of many other vices, such as alcoholism, excessive living, etc., it must certainly be a difficult matter to estimate the share of the tobacco in causing the disturbance of mind. The fact alone of the great preponderance of lunatics of the female sex has been referred to as disproving the idea that tobacco either causes or predisposes to mental disease.

It is remarkable the craving that the insane have for tobacco. "It is the most universally agreeable substance to the insane, whether to snuff, smoke or chew. There are some who, in any of these ways, it renders more tranquil, and in lunatic establishments it is often found a ready means to gain good will and confidence."

In order to learn whether workmen in tobacco factories commonly suffer from nicotine poisoning, the writer has interviewed a large number of manufacturers upon this point, and though perhaps prejudiced and not always competent observers, yet their statements possess some importance. As far as they knew, their workmen were as healthy as men in other employments. It was generally their life-work, and was followed to old age without apparent bad results: An interesting case was pointed out of an old man whom the cannibal would certainly have refused, who had worked in the dust of snuff for thirty-five years, and had during this time been an excessive chewer, swallowing the juice. This case illustrated the unusual tolerance that in some individuals may be established. The man had never noticed any ill-effects from the habit, having as a rule enjoyed good health.

The following is taken from the London *Lancet*, vol. ii., p. 269: "In 1845 the Paris Academy of Medicine appointed a committee to examine the reports for the year 1842 of physicians to the tobacco factories of France. A careful analysis of reports addressed to the French government led to these conclusions:

"Workmen who enter suffer for a few days from headache, and perhaps some nausea, which, with a few exceptions, soon disappear. The health of the employees is generally good, even better than that of others in the same community, this being due likely to their higher wages and more comfortable living. No special malady is found among them. They live long, usually working until stopped by age."

More thorough investigations later did not materially change these conclusions.

Scabies and skin diseases generally are found to be very rare among workers in tobacco. There was a discussion at one time in which it was differently held that the use of tobacco checks to some extent the deposit of tubercle, and on the other hand that it predisposes to it. This question was inquired into by a committee appointed by the French Government. After diligent examination of a vast number of cases the conclusion was reached that the use of tobacco actually retards in a measure the tubercular process. The fact has been noted that in India pulmonary consumption is not common, while the natives smoke excessively and at an early age, being subject also to severe vicissitudes of climate.

It has been alleged that cancerous ulceration of the lip and tongue have been produced by smoking. This idea, however, is discountenanced by the leading authorities.

"The causes of cancer of the lip are unknown.

\* \* \* \* \* Writers and teachers \* \* \* \* \* have referred its origin to the habit of smoking a short clay pipe. \* \*

"Such an opinion would be entitled to respect if it were not for the fact that subjects of cancer of the lip often do not use tobacco in any form whatever." (Gross' Surgery, vol. ii., p. 539.)

It is interesting to notice the remarkable statements that have been set forth from time to time by zealous opponents of tobacco. In a treatise on tobacco, published in England many years ago, Dr. Budget stated that "in America it was no uncommon circumstance to hear of inquests on the bodies of smokers, especially youths, the ordinary verdict being, 'died from extreme tobacco smoking.' Such a finding by a coroner's jury at present would certainly be regarded as unique. It has even been asserted that a syphilitic subject might communicate the disease to other persons by the smoke of his cigar. It is obvious that infection in this way is utterly impossible. All of the following conditions and maladies, with innumerable others, have been attributed to the use of tobacco: goitre, scirrhus of pancreas, and pylorus, cancer of lip and tongue, atrophy of salivary glands, dyspepsia, cardialgia, organic disease of heart, defective nutrition, anæmia, depravity of the secretions, acne, gum boils, ulceration of larynx, predisposition to phthisis, anorexia, diarrhoea, languor, headache, alcohol habit, perforation in typhoid fever, jaundice, swelling of feet, hoarseness, disturbed sleep, sense of suffocation, night-mare, irritable temper, enervation, hysteria, indecision, vertigo, melancholy, loss of memory, apoplexy, delirium tremens, paralysis, mania.

softening of the brain, *early senility*, imbecility, epilepsy, *cowardice*, deafness, amaurosis, spermatorrhœa, and emasculation."

After one of the protracted discussions in England on the tobacco question, Dr. Richardson published, in 1862, a series of papers, which were summarized by the *Lancet*, 1863, p. 676, as follows:

1. The more common effects are due to carbonic acid and ammonia.
2. The effects are but transitory.
3. All of the resulting evils are functional.
4. Produces disturbance in blood, stomach, heart, organs of sense, in brain, sympathetic system, and mucous membrane of mouth, and bronchi.
5. As a cause of insanity, epilepsy, chorea, apoplexy, organic disease of heart, cancer and consumption, there is not sufficient evidence.
6. It is deleterious to the young.
7. In the main it is a luxury that any nation is better without, and to the mind conveys the idea of physical detriment.
8. As a luxury tending to this condition, it is one of the least harmful. Is innocuous compared with alcohol, is not more harmful than tea, less so than sugar, and is antidotal to gluttony.
9. It is a remedy in certain cases for evils that lie deeper than its own.

Though there have been bad results well ascertained traceable to the abuse of tobacco, yet the facts and weight of authority seem to show that its harmful effects, as a whole, have been greatly exaggerated, and that it may be used by the majority of adults, if used moderately, or rather intelligently, without being productive of the least injury, but on the other hand, often of decided benefit.

Sir Benjamin Brodie, while opposed to the use of tobacco, gave the following very candid opinion: "A disposition to use it, so universal, must almost be regarded as an instinct, and there is sufficient reason to believe that within certain limits the indulgence is useful. But we must not," he adds, "abuse our instincts."

"The desire for a stimulant of this kind is so general that it would seem there is actually a need for it."

Dr. Pareira states, in his *Materia Medica*, that he is "unacquainted with any well determined ill effects from the practice of smoking," and Christison speaks of it as "a luxury used all the world over without any bad effects having been clearly traced to it." In a letter of Dr. Parkes, author of "*Parkes' Manual of Practical Hy-*

*giene*," in *Lancet*, page 384, 1880, he confesses that he has searched in vain for any satisfactory evidence of the harmful effects of tobacco, and that it was for this reason that its consideration was not given place in the work mentioned.

The fact has been pointed out that men are on the whole, as healthy as women, while nine out of ten of the male population of the world use tobacco, and women as a rule abstain. In the learned professions, about one-half of the ministers are addicted to it in some form, likely three-fourths of all physicians, and nine-tenths of members of the legal fraternity.

In looking calmly at the tobacco question, there is one feature calculated to excite alarm, and that is the habit of chewing and smoking so widely practiced among boys. This, to young growing boys, is unqualifiedly hurtful. They voluntarily endure the first disagreeable effects of the tobacco to acquire what they consider an accomplishment, the habit is finally confirmed, and with an entire ignorance of its powers, added to a tendency to immoderation, the growth and development is often seriously interfered with, and the worst results follow. They smoke and chew generally the worst tobacco, and to a degree which would positively be harmful to the majority of adults.

This matter should be corrected by proper action of our legislators, with whom the responsibility rests.

Smoking, when done at proper times, facilitates digestion. The sense of relief obtained by a cigar, after a heavy meal, is well-known to smokers. Dyspepsia sometimes follows the discontinuance of tobacco, and is removed when the habit is resumed.

While the abuse of tobacco weakens the system and leads to emaciation, used intelligently it exerts a favorable influence upon nutrition.

Hammond, by observation upon himself, found a gain in weight with the use of tobacco. Fiske attributed an increase of twenty-four pounds in three months to tobacco. "Tobacco, when the food is sufficient to preserve the weight, increases it; when insufficient, and the body is losing, tobacco restrains the loss." (Hammond.)

Bœrhaave, of Holland, over two hundred years ago referred to tobacco as being *antidotal to hunger*. It seems that the power to undergo severe exertion and fatigue, either mental or physical, is aided by tobacco.

"Soldiers of all nations use it. It was a standing injunction of Napoleon that his troops should have tobacco, and it was of great advantage in the retreat from Moscow." (Fiske.) During our

late war the soldier would be patient under very severe privations, if he but had a good supply of tobacco to smoke or chew, and when on picket duty would risk his life to strike a match for his pipe.

Situations of loneliness are always rendered more tolerable by tobacco, and it is the constant companion of those who lead lives of solitude, such as that of the herdsman or ranchmen. A feeling of unrest or discontent, made up of ill-defined longings, of imaginary disappointments, and unpleasant anticipations, commonly known as *ennui*, is responsible for much unhappiness. This unfortunate condition of mind is removed by the soothing influence of a cigar, and the moroseness and gloom are quickly dispelled. As much of every day is filled up with care, our degree of comfort in this life will depend largely upon our ability to bear it uncomplainingly. That tobacco assists us to do this, that it enables us to look upon life more complacently, must be the conclusion of every one who has experienced its influence. That it enables us to toil with less fatigue, is equally true. The readiest writers generally use tobacco, and cannot accomplish the same amount of work in the same time without it, and those connected with newspaper and other literary work who have often to write against time find it of inestimable value.

Tobacco formerly enjoyed a deserved reputation as a medicinal agent, and was extensively used in scabies and other cutaneous disorders. It has been largely supplanted, however, in modern practice, by other remedies. The use of tobacco during a mercurial course decreases the risk of salivation, and cases of ptyalism have been reported cured by its employment. Before the discovery of chloroform, tobacco served a useful purpose in the hands of the surgeon in cases of strangulated hernia for obtaining complete relaxation. Tobacco constitutes a most valuable addition to the ordinary poultice in local painful affections. In two cases of carcinoma of the breast, by incorporating it in a local application, a marked advantage was noticed by the writer in the relief of pain. As an ingredient in asthmatics, cigarettes with belladonna, stramonium, etc., it is entitled to share in the remedial effect.

The limited medicinal range of tobacco is unimportant in comparison with its social and psychological influences. Among its many beneficent powers, it appears to allay worry and lighten toil. It is an aid to mental work, and a help to reflection and complacency. It promotes sociability, and in the words of one of its champions, "makes a man act more like a Samaritan."

While it is neither liked nor needed by animals, who loathe it, it seems to be required and craved by man, to whom its characteristic properties appear peculiarly grateful and often useful. It has repeatedly and unjustly been called a curse, but those who have written most of its baneful effects, as a rule have never used it.

Indeed, this comforting substance is so far removed from the idea of a curse, that it should not be forgotten when we recount the many blessings of mankind.

#### RECENT MEDICO-LEGAL MATTERS.

BY HENRY K. A. RILEY, ESQ.,  
Of New York City.

A branch of law of great interest to physicians and surgeons is that arising from the employment of the profession by servants of corporations, in cases of accident without the knowledge or authority of the higher officers. It cannot be said that there is any invariable rule on the subject, either fixing the liability for compensation or relieving the corporation from it. Some of the States hold that the act of the employee binds the corporation in cases of emergency, and some deny that such is the rule.

The Supreme Court of Indiana has just decided a case in point by holding the corporation liable, and a statement of the facts upon which the judgment was rendered will be of interest:

Frankfort is a way station on the line of the Terre Haute and Logansport railroad, distant many miles from the principal offices of the company, and from the residences of its chief officers. At this station, at one o'clock in the morning of July 2, 1881, Thomas Coon, a brakeman in the service of the company, had his foot crushed between the wheels of a car of the train on which he was employed as a brakeman, and a rail of the track. The injury was such as demanded immediate surgical attention. The conductor of the train requested Dr. McMurray, a surgeon residing at Frankfort to render the injured man professional aid, and informed the surgeon that the company would pay him for his services. At the time the accident happened, and at the time the surgeon was employed, there was no officer superior to the conductor at the town of Frankfort. There was at the station a resident agent, who had full knowledge of the injury to Coon, and of Dr. McMurray's employment.

This agent was in telegraphic communication with the principal officers of the company, but did not communicate with them. Upon these circumstances the court which tried the case held the



railroad company liable, and a verdict of \$100 was rendered in his favor. The railroad company appealed from this decision, and the Supreme Court of Indiana has just decided that the judgment was right and must be affirmed. The court considers at length the claim of the company, that a conductor has no authority conferred upon him to employ surgeons and make the company pay for their services, when rendered without the knowledge of the officers, and that such action was totally outside the scope of his ordinary work as a conductor. After careful examination, it decides that in the special instance the claim does not apply. The rule that an agent can bind his principal only in cases within the ordinary scope of his employment, is held to be a sound rule of law in most cases, but that an extreme emergency will give the conductor, who was the highest representative of the company at the place of the accident, the same powers to act that are ordinarily only enjoyed by the superior officials. Upon this point the judges say: "Can a man be permitted to die while waiting for the company to determine when and how it shall do what humanity and strict justice require? Must there not be some representative of the company present in cases of dire necessity to act for it? The position of counsel will meet ordinary cases, but it falls short of meeting cases where there is no time for deliberation, and where humanity and justice demand instant action. From whatever point of view we look at the subject, we shall find that the highest principles of justice demand that a subordinate agent may, in the company's behalf, call surgical aid when the emergencies of the occasion demand it, and when he is the sole agent of the company in whose power it is to summon assistance to the injured and suffering servant. Humanity and justice are for the most part inseparable, for all law is for the ultimate benefit of man."

A bill has been introduced in the Ohio Legislature, under fair prospects of passing, which provides that children under twelve years of age shall not be employed in mines or manufacturing establishments. The bill also prohibits the employment of children in the public institutions, such as houses of refuge and work-houses, more than six hours a day. Firms and business corporations are also required to furnish the females in their employment with suitable seats when not necessarily engaged in the active duties of their business.

A curious case of the vagaries of expert evidence was developed in a murder trial a short time since in Oneida county, New York. A mur-

derer named McCarg was on trial in Utica, charged with shooting a woman. She was found dead on a bed in her father's house, while in another room, twenty feet distant, a revolver was found. An examination of the body showed that the bullet had passed through the right and left ventricles and aorta of the heart, and the testimony of several physicians was taken to the effect that death must have been instantaneous, thus defeating, necessarily, the defence of suicide. The criminal was convicted; but not altogether on this evidence against the possibility of suicide.

While the trial was in progress, another tragedy transpired only a few miles from Utica, and a man was shot twice, once through the right lung, and once through the left lung, the left auricle, and the right ventricle of the heart. This injury was very similar to that of McCarg's victim, but it was shown that the injured man walked, actual measurement, eighty-two feet before he fell, a much longer distance than was testified on the McCarg trial to have been out of the question.

It is not unlikely that McCarg will get a new trial, although the proof against him seemed very strong on other grounds.

## HOSPITAL REPORTS.

### NEW YORK HOSPITAL.

CLINIC OF PROF. WILLIAM H. DRAPER, M. D.

Reported by W. H. SEELYE, A. M., M. D.

#### Transverse Myelitis.

This, gentlemen, is the case of myelitis, the diagnosis of which I was in some doubt about when I first showed him to you (see page 298), thinking that it might prove to be a case of polio-myelitis anterior, and not a case of transverse myelitis, involving the whole thickness of the cord. But the progress of the case since then obliges us to give up that idea. For the sensory disturbances are just as well marked as when he came in, and there is anesthesia of all the parts below the umbilicus still, and the paralysis of the sphincter of the rectum continues, and there was, until yesterday, retention of the urine from paralysis of the bladder, and he has had some other irregular symptoms since. Observe how very red his face is, and how very congested the upper part of his body and his upper extremities have become, while he is bathed in a cold, clammy sweat. This is due to a vaso-motor paresis in the upper portion of his body, which, I think, is the result of reflex nervous disturbances. There has been no extension upwards of the lesion since you saw him. The sphincter of the bladder has been overcome by pressure from having been left until it became over-distended with urine. The urine has been regularly drawn twice a day, but yesterday it was neglected for once, and as a result,

he is now suffering from incontinence. The trophic disturbances are not yet very marked in the skin. Some blisters were applied to his back before he came in, and it was feared that this might result in a loss of tissue. But the skin is now healing over them. So the trophic disturbances are not so great as they ordinarily are in acute myelitis. And the fact that there are no bed-sores here as yet is a favorable circumstance, for it shows that there is not as yet a deductive inflammation extending throughout the whole mass of the cord. The trophic disturbances in lesions of the spinal cord are as a rule especially to be noticed in the skin, mucous membranes, and joints. These patients usually suffer from a vesical catarrh, which is due to an irritation of the lining mucous membrane, provoked by an imperfect emptying of the bladder, which allows a portion of the urine to remain and to undergo alkaline fermentation and decomposition. And, again, in diseases of the spinal cord, as in Pott's disease, and in tabes dorsalis, or locomotor ataxia, it is usual to have suppurative lesions and disorganizations of the joints below the spinal lesion.

There is a point in the management of these cases which is important. You saw here that so long as the water was drawn twice a day, the bladder retained its water perfectly; but from an unintentional neglect to perform this duty, there is now a constant dribbling of the urine. It is therefore important to frequently empty the bladder; and if you fail to do so the patient will probably not remind you of the fact, because he suffers no uneasiness from the over-distension. It is important also to do what you can to protect him from those trophic disturbances which are apt to occur upon the skin, by relieving the prominent parts from pressure, by putting him upon a bed so made as to equalize the pressure over the whole surface; and the best form is the water bed, which is so made that it does not press upon any particular point of the body more than another. Absolute cleanliness is of the greatest importance, and nursing is more than half the battle. You should see that the skin is protected from the irritation of the discharges of every kind. And you should arrange him so that he can have his movements without changing the position of his body. And there are beds which are made for this very purpose. The treatment employed here has been the administration of ergot, which, as you know, is looked upon as a remedy of specific power in controlling the circulation in the nerve centres.

## MEDICAL SOCIETIES.

### PHILADELPHIA COUNTY MEDICAL SOCIETY.

(Continued from page 464.)

*The Poultice.*—I now come to a subject which has interested me a great deal, and about which I have some convictions, which may be exaggerated, but which are founded upon careful observations made during about five years. One of these convictions is, that the use of poultices is very much overdone. Poultices are of service when it is desired to increase vascular activity in

low grades of inflammation, with depressed circulation, and when it is desired to promote or increase pus-formation. But I think they do their work in a short time, and that their prolonged use may bring about a condition in which nature seems unable to get beyond the production of a very feeble and unhealthy sort of tissue. Kept hot and frequently changed, so as to get away the filthy discharges, for a few days they are invaluable; but allowed to cool, left on long at a time, and continued for many days, they do great harm. When a slough is to come away, as after canterization, or the opening of a felon or carbuncle, nothing which I know of equals a poultice for comfort and effectiveness. But, even in these cases, one should, I think, give them up as soon as the slough is away, and treat the wound as a simple ulcer.

There are no cases which have so much enforced this conviction upon me as those of deep inflammations of the hand and foot, felons, and palmar and plantar abscesses. I have myself seen, and so have those who have followed my service in the surgical out-patient departments of the University and Presbyterian Hospitals, many cases which have illustrated the advantages and disadvantages of the use of poultices in the most impressive manner. Only this autumn I have seen three cases where hands affected with deep palmar inflammation have been almost sacrificed to the persistent use of the poultice—all three of them turning immediately back to recovery as soon as the poultices were laid aside and nature given a chance to do what she could without them. I may say something similar about felons. I have seen felons, well opened and then too long poulticed, kept unhealed for a long time, the tissues of the finger becoming boggy and of very low vitality, which recovered promptly when nature was let alone for a while, and a little attention paid to the general system.

The result of these observations has been, that I make but little and brief use of poultices in these troubles. A felon I open deeply whenever I think there is pus actually present—never before, for they can often be aborted—then I encourage bleeding by a good soak in very hot water; then I poultice for *one day only*, soaking frequently in water as hot as can be borne. After this I dress with pure laudanum, or lead-water and laudanum, or a simple ointment, unless there is obviously a slough forming; and I usually can dismiss my patient in a few days. When a felon has gone on to destruction of the vitality of bone or tendon, poultices may be used longer; but I believe one should be always on the lookout for the time when they can be thrown aside.

The best treatment of palmar and plantar abscesses, or rather of deep inflammation of the hand and foot, cannot be stated in a few words; but alas! for the patient whose doctor is too timid to use the knife, and too assured of the saving grace of the poultice. Too little of the one and too much of the other, is a sad combination.

*Strapping with Adhesive Plaster* for ulcers is a troublesome, though very valuable, surgical procedure. It is common in this country to put straps on only part way round a limb, and to fear the strangulation which may follow going all the way round. But this fear is groundless. In

England, straps are applied by placing the middle of one at the part opposite the ulcer, carrying the two ends forward, crossing them over the ulcer and fastening them down at the opposite side from which they start; and I have practiced this method myself with perfect safety and success. So much as this, is, however, rarely necessary. A good plan is to apply narrow straps at intervals over an ulcer and to place on top of this interrupted adhesive-plaster support, some stimulating ointment on lint—and over all, cotton batting, or oakum, and a bandage. But two things, sometimes neglected, are essential to the best success of strapping: one is, that the straps be not too wide—say about an inch or less in width—another is, that they should draw the sides of the ulcer together a little, and not simply be plastered against it.

The pressure which can be secured with adhesive straps I have also found useful in a number of inflammatory conditions. I need not mention the strapping of inflamed breasts. But the application of narrow straps will also furnish great relief in the case of boils and carbuncles, and I have had a case of paronychia which resisted assiduous treatment for a long while, but in which immediate relief and rapid recovery followed the application of a circular dressing of adhesive plaster round the end of the finger.

*Collodion.*—This is another agent which may do good service in minor surgery. Many wounds can be easily and effectively coapted by drawing the edges together, laying over them a strip of tarlatan or other bandage, and saturating it with collodion. It should be remembered, however, if one is dealing with children, that collodion applied to a raw surface is very painful for a while. In applying dressings to the face, we may often dispense entirely with a bandage by using collodion in this way, or by placing against a small wound, or ulcer, or fistulous opening, a little absorbent cotton and gluing its edges down with collodion. If proper, the whole of the cotton may be painted over with the collodion, and a neat, soft, absorbent, but impermeable dressing will be made.

Strips of thin material, applied to the surface, and painted with collodion, make a good and comforting pressure upon boils and small carbuncles. Collodion painted directly on the skin is also often very efficient for this purpose. I have found, finally, that sties on the eyelids can often be aborted by touching them with the point of a small camel's hair brush, dipped in collodion. Of course, care must be exercised, when doing this, not to put any of the collodion in the eye.

##### 5. BANDAGING.

A mistake is sometimes made in bandaging too tight, and I have once seen a case where gangrene was caused in this way. But, fortunately, the time-honored wood-cut, which serves in many works on surgery as a warning against this error, furnishes the best information most of us get as to what such a thing is. There is another error, much commoner, and that is bandaging too heavily. I have often seen patients who came with a member firmly bound to a splint, with the laudable object of preventing injurious mobility, but loaded down with successive layers of band-

age, until the heat had set up an active inflammation, with the customary accompaniments of pain and swelling, which subsided when the lightest possible splint was used, and the thinnest possible bandage.

Sometimes it is desired to apply water after a bandage has been put on. In such cases, of course, the bandage should be thin and open-meshed, and put on as loosely as is consistent with safety. For this purpose, the cheap unbleached muslins are far better than the fine ones furnished by the instrument-makers. Water can also be insinuated under a bandage, if the member has first been wrapped in a layer of absorbent cotton or lint.

I think it is a mistake to bandage too far from the seat of an injury. I am sure we sometimes, from the mere force of habit, send a patient away with an imposing surgical dressing, who, if he had not had access to a surgeon, would have done well with a rag tied round his finger or hand. And, in regard to fingers, there is rarely any need to involve the hand and wrist in a dressing intended for an injury to a finger alone. In such a case, it is sometimes desirable to go a little way from the injury: but usually it is sufficient to pass one joint above and below, and to treat separate fingers separately. Sometimes two or more may be bound together for mutual support; but often it will pay, in comfort to the patient, to dress each by itself, and to release at once any one which is well enough to be let alone, and not to keep it waiting upon others.

The placing of cotton under a bandage has other uses than to facilitate the application of water. One of the most important is, to exert uniform pressure, to prevent swelling, to promote absorption of effusions. One who has not tried it systematically would hardly believe what this sort of compression will accomplish; and I think it might be set down, as a rule, that all contusions of joints, and most inflammatory swellings, should be subjected to the equable compression and gentle warmth of dry cotton and a pretty firm bandage. Here, again, I have found it advantageous to follow the suggestions of Mr. Sampson Gamgee, and have come to prefer this method to the traditional lead-water and laudanum.

Before leaving the subject of bandaging, I would like to call your attention to a method of applying a bandage to a limb, recommended by Mr. Sampson Gamgee, which does away with the need for making "reverses," and which makes a much better bandage in many ways than the ordinary one. Two of its advantages are, that it is easier to apply and much less likely to slip. The method of its application is simply to begin at the distal extremity with a few circular turns, and then go up the limb without reverses, and letting the bandage go where it will, always resting smoothly against the surface. If allowed to go where it will, it passes spirally up to the next joint, turns naturally pretty straight round below this, and descends in another spiral, crossing the first with a sort of lattice-work until it reaches the bottom. Here it will go round again and incline upward to repeat the former course. The least guidance imaginable will cause the bandage to cover the spaces left open by the previous spirals, and the limb is covered in smoothly and evenly, and as

thickly and firmly as the operator's will and the length of the bandage permit.

#### 6. SPLINTS.

I have already once or twice incidentally indicated what I think to be an important point in regard to splints, and worthy of more particular mention—I mean their weight. A splint should be no heavier or thicker than is absolutely necessary. The lighter the better, is, I think, a good principle. Let light pasteboard be used when possible, or the very thinnest wood. Nor need their weight and thickness be increased by padding. This is especially true in regard to splints for the arm, where wooden splints are oftenest used. I find it sufficient to wrap a thin wooden splint in waxed paper, to make it perfectly smooth and keep it clean, and to interpose between it and the arm a double strip of lint. These I fasten in place, on the arm, with three or four strips of adhesive plaster, avoiding the seat of fracture or other injury, and covering all in with a light bandage. Then the parts can be examined at any time by simply removing the bandage, without taking off the splint or disturbing the seat of the injury. Of course, little wads of cotton may be placed where the member does not touch the splint, and bony prominences must not be pressed too hard against it.

And here I wish to urge upon your attention what I think the best splint for the forearm and hand. Since adopting it, I have found that, like many other supposed discoveries, it is by no means new. But it is so little used that I think it can hardly be much better known to many others than it was several years ago to me; I mean the *posterior, straight splint*. Any one who studies a forearm will see that when the hand and finger are extended, the dorsal surface is almost an accurate plane, while the ventral surface is very uneven. Arguing from this, I thought it well to follow the apparent hint of nature, and to use this surface for my splints. I soon found that I could treat injuries of the forearm [and hand, requiring a splint, very successfully with a thin, straight splint, applied in the way just described. And I may say that I have found it much easier to prevent stiffness of the wrist-joint—the bane of fractures of the lower end of the radius—by this, than by the time-honored Bond's splint, which I have not used for several years. With the Bond's splint, I have, in former years, had much trouble from stiffness, and seen much trouble when it has been used by others, because, while the position of the hand seems to be favorable to motion, I have not found it really so, but that the patient's fingers are either bound to it too firmly, or they themselves clasp the block so constantly and so rigidly, in spite of all injunctions to the contrary, as to tend to stiffening of all the joints involved. I need scarcely add to what I have already said any further arguments as to the advantage of the posterior splint in the way of lightness and the facility it affords when used in the way I suggest, for examining the seat of injury without disturbing it. The Bond's splint, on the other hand, as frequently applied, is heavy, hot, more or less painful, and troublesome to remove for subsequent examination.

#### 7. THE SLING.

I cannot close these remarks without saying—what my observations lead me to believe is not uncalled for—a word about slings. It ought to be an invariable custom—with those rare exceptions in which for the purpose of drainage it must be reversed—to have a sling so regulated that it will support the hand at a higher level than the elbow. A neglect of this very simple, and, I believe, very important rule, is sometimes followed by great pain and swelling of the hand, and a degree of discomfort which would be incredible to one who had not investigated the matter. Further, a sling should be broad enough to support more than a narrow strip of the arm, or one will be apt to find its position marked by a furrow dividing two swollen parts of the arm, in a manner which is not neat, and which suggests possible injury or interference with the most rapid recovery. Another point about slings concerns the length of time they should be used. Here, again, I think our routine is sometimes too rigid. It cannot be stated exactly how long a sling may be useful; but I have often found it of advantage to let an arm be taken out and allowed to swing at the side, at least occasionally, long before the splint could be dispensed with. If any of you who have not done so already, will try this plan with your patients, I think they will thank you for it, and that neither they nor you will regret it.

There are other matters which have occurred to me in my hospital and private experience, of which I might speak, if I had time and you had patience enough. But I must close with one suggestion, which I think of too great importance to be wholly omitted; this is: never to neglect, in treating a surgical injury, the constitutional condition of a patient. I have rarely seen a surgical case which was not the better for some medical treatment. A look at the tongue, and a question or two, will usually convince us that a patient will be helped by having the bowels cleaned out with a brisk saline purge. In almost all inflammatory conditions, such as carbuncles, abscesses, felons, deep palmar or plantar inflammations, it is my invariable rule to order a saline purge and follow it with full dose of the tincture of the chloride of iron, or Huxham's tincture. Quinine I do not use, because, for some reason which I cannot give, the preparation of bark seems to do more good.

And with this I close my remarks. I trust they may not be thought too trivial to have occupied your attention, or too dogmatic, in view of what may be very different opinions on your part. They are, as I have said, notions which I have acquired from my own experience, and which, if correct, may help others, and if incorrect, I shall be glad to have made right.

#### DISCUSSION ON SUGGESTIONS FOR SURGERY.

Reported by G. Betton Massey, M. D.

Dr. John H. Packard, in opening the discussion said: "The ground embraced in Dr. Dulles' communication is so very extensive, that it hardly admits of full discussion; but indeed, what I shall have to say is not so much in the way of unfavorable criticism as of endorsement and addition.



"First, as to salivary fistula: while admitting the ingenuity of the proposed bed, I think it would in many cases be rendered doubtful by the difficulty of procuring the discharge unmixed with saliva.

"In wounds of the face, one important object is the avoidance of unsightly scars; and hence the removal of scabs or crusts of blood is often imperatively called for, in order that the surgeon may assure himself of the proper coaptation of the edges.

"I endorse entirely what Dr. Dulles says of the propriety of cleansing the surfaces of wounds with water. A very handy way of doing this, especially in private practice, is by means of a syringe, which need not be very large. An article known as 'Hall's Health Syringe,' may be used to advantage; the liquid to be used being placed in a bottle, and not coming in contact with the bulb or valve, so that medicated washes may be employed without damage to the instrument itself.

"As to hemorrhage, I would qualify what Dr. Dulles has said. We are not, in my opinion, as a general rule, justified in closing a wound until the bleeding has been completely checked; hot water will generally effect this, or if there is a small vessel spouting, a serre-fine may be applied for a short time. Whenever prompt healing is to be aimed at, clots should be carefully removed before bringing the edges together. In saying that it is well to allow some blood to flow from a wound, and to empty the vessels in its neighborhood, Dr. Dulles is in accord with Paré, who, three hundred years ago, recommended such a course after the performance of amputation.

"I concur with Dr. Dulles in his condemnation of the careless and slovenly use of styptics, and especially of the tincture of chloride of iron. During the late war, in the military hospitals, I many times saw wounds stuffed with this article, forming a mass of mud which had to be dug out, the bleeding continuing beneath it. Some of the gentlemen here to-night, I know, shared this experience.

"One of the best and cleanest styptics, known as that recommended by the elder Pancoast, consists of potassium carbonate, soap, and alcohol. It has the disadvantage of causing very sharp pain for a few moments after it is applied, but is very effectual. In cases of alveolar hemorrhage, a method which I have found useful is to make a small cone of cork, cover it with "styptic cotton," and press it into the cavity. Such a plan might answer also in cases of pus oozing from vascular bone after the removal of sequestra; but hot water generally suffices here.

"Hemorrhage from either palmar arch ought, in my opinion, to be dealt with by cutting down upon the wounded vessels, and tying it on either side of the orifice, or securing both ends if it is divided. I have seen so much trouble from less decided practice, resulting at last almost always in a resort to the procedure just named, that I believe it to be the best surgery to adopt the latter in the first place.

"With regard to dressings, I think lead-water and laudanum very valuable, but it needs to be sufficiently diluted, so that absorption may take place, otherwise it simply shrivels and corrugates

the skin. A very large list of ointments, vaselines, with or without morphia, resin cerate, compound elemi ointment, etc., might be added to the small list given by Dr. Dulles.

"In cases of painful ulcers, or raw surfaces in healing wounds which have sometimes exquisitely sensitive spots, the covering of such spots with a little piece of 'skin-plaster,' sometimes called 'gold-beaters' skin,' will often afford efficient protection, and allay the pain given in dressing.

"A form of poultice which has given me much satisfaction is the 'dry poultice,' consisting of an even sheet of raw cotton, applied warm to the part, and then covered with oiled silk, oiled calico, or waxed paper.

"Collodion is rendered much more efficient by the addition of gtt. v. of castor oil to each f. 3j. This gives it a slightly unctuous or greasy feel, and makes it both more flexible and more adhesive.

"Bandages are perhaps often applied too tightly, with the idea that they will retain their hold better; yet we very rarely see serious damage done in this way, and I think the more common error is to bandage so loosely as to fail of giving the parts proper support.

"It seems to me that the practice of confining the rest of the hand, or a large portion of it, in cases of injury to a finger, is eminently judicious; the patient is very apt to use the hand so freely, if this is not done, as to interfere with the well-being of the injured member.

"With regard to the padding of splints, I think cotton is very often improperly used. It ought to be in very even sheets, of carefully adapted thickness, and should be changed at once when it becomes sodden and lumpy with perspiration. I prefer it decidedly to the coarse and thick oakum sometimes employed. I have often used a double fold of what is known as Canton flannel, for the lining of splints, with satisfaction both to myself and to the patient.

"I would like to ask Dr. Dulles if, in fracture of the middle of forearm, he would apply a dorsal splint?"

Dr. Dulles: "I would in some cases."

Dr. Packard: "I think that in the application of a single splint to a fracture of one or both bones of the forearm near the middle, there would be danger of loss of the interosseous space by pressure of the bandage, as well as of irregular union of the fragments by the rotary movement allowed to the part. The latter can be prevented, however, by the simple device of extending the splint up along the arm, with an angle at the elbow.

"The subject of the so-called Barton's fracture (in reality Colles') is too large for me to take up now; but I must say that I cannot see how such injuries can be efficiently treated with the dorsal splint. Good results have been claimed to have been obtained with every one of the various forms of splint proposed for the treatment of these fractures; but the fact is that the mere restoration of the use of the arm has been regarded as a good result. I have seen many cases which had been treated by the most careful surgeons with Bond's splint, for example, and in every one there was a marked deformity, and a certain loss of power of

flexion, remaining at the end of many years; in some there was also notable weakness, especially in the action of pushing. I think we ought only to be satisfied with the most perfect attainable results; with the restoration of the broken limb to its exactly normal shape, its full power, and its free motion, as nearly as it is possible for us to effect it.

Dr. S. W. Gross: "The ulcers, alluded to by Dr. Packard, characterized by a great deal of pain, may be found in other than syphilitic subjects, although they are especially frequent in such cases. The pain is caused by the exposure of the nerves in the granulating mass. By finding the sensitive points, the pain may be relieved by dividing the nerve trunks with a tenotome, applying nitric acid and then a watery solution of morphia and chloral.

"I don't think Dr. Dulles wants blood to remain in a wound; it keeps the surfaces apart, and furnishes material for decomposition and its consequences. I quite agree that no haste should be made in taking up small arteries, but am not prepared to endorse the statement that all hemorrhages of the palmar arch can be treated by pressure alone. I cannot but think he would tie the principal arteries. In treating such a wound, it becomes a duty to arrest hemorrhage by ligature, acupressure, or other precaution, with subsequent application of the roller-bandage.

"To prevent gangrene, the roller bandage should be applied carefully and removed after the first eighteen hours. The compress then readily remaining in place from adhesion, the bandage may be reapplied lightly. If hemorrhage becomes imminent, an excellent tourniquet is the flexion forcibly of the bandaged elbow.

"I enter a protest against the wholesale denunciation of styptics of the previous speakers. I do not think the surgeon should apply Monsel's solution when ordinary measures will answer, but there are certain wounds in which styptics are absolutely necessary. Thus, in a case of removal of the hypertrophied tissues of the palate, the surface was bleeding severely, the blood coming from the posterior palatine artery, where it was impossible to apply to apply a ligature or the hot iron, a watery dilution of Monsel's solution was applied on cotton, and firmly pressed against the bleeding part with the finger, with immediate results in stoppage of hemorrhage. The importance of black heat as a hemostatic is too little appreciated."

Dr. Packard: "I desire to say that I did not denounce styptics, but merely their improper use."

Dr. R. J. Levis: "I have been interested in the recommendation of the dorsal splint. If the simple straight splint is to be used at all, it should be placed on the dorsal aspect of the arm, as this side more nearly corresponds to a straight line than the palmar surface. With regard to fractures of the radius at its lower end, none can be treated by an anterior or palmar straight splint, without great deformity occurring, due to forcing upward of the lower fragment and destruction of the natural concavity of the lower surface of the bone. The dorsal surface being less concave and more nearly a plane, is more readily adapted to the straight splint.

"If Bond's splint were turned upside down, it

would serve its purpose almost better than as it is usually used."

Dr. John B. Roberts: "The value of the paper just read is shown by the fact that each speaker discusses a different point. There are two or three not yet reached. Very incidental mention of the exploring needle was made. I always carry a hypodermic syringe with glass cylinder, which acts well as a suction syringe, and is preferable to the exploring needle. In following hospital practice one may see poultices frequently misused and giving rise to large, flabby sores, requiring subsequent use of astringents. I am sorry that I have to differ from my friend, Dr. S. W. Gross, as to styptics. These are generally useless, and if not useless, inefficient. When they are used with pressure, as in Dr. Gross's cases, it is usually the pressure that stops the bleeding. The thumb alone would have been sufficient, or the absorbent cotton. Splints are almost always kept on too long. I always use, for fractures of the lower end of the radius, a Levis metal splint, kept in place two weeks; then I apply a strip of plaster around the wrist to give a little support and remind the patient that his wrist has been broken. I believe no possible use can be found for Bond's splint. Nothing has been said, to-night, of moulded splints. A good moulded splint is made of gutta percha soaked in hot water, but the resultant sweating, caused by its allowing no evaporation, is an objection."

Dr. Addinell Hewson: "I had the good fortune to see Dr. Bond apply the Bond splint for the first time. He always insisted that the elbow should be above the shoulder, and the hand in middle pronation-supination. The side-piece was shorter, and a cavity was made for internal condyle. He made the patient grasp splint firmly during the process of reduction of the fracture.

"Another point I may notice is forced flexion at elbow- or knee-joint, for arresting hemorrhage. This will hearily always succeed.

"Finely powdered white sugar, sprinkled over a bleeding surface, is an excellent styptic, without the disadvantages of some. The sugar should be used powdered, not granulated.

"Donna Maria gauze, applied in strips across a wound, and secured at its ends by collodion—a most excellent device of the late Dr. Paul Beck Goddard—gives us the advantage of seeing how well the coaptation of the edges is effected and maintained."

Dr. George E. Stubbs: "I have been very much interested in the paper of the evening, and appreciate the value of the points brought up by the surgeons present. I differ from Dr. Roberts as to the use of exploratory needles. In deep-seated abscesses, the grooved needle is better, because the groove affords an immediate guide to the knife-point, if pus is found.

"In cleansing wounds, the so-called 'household syringe,' on account of the gutta-percha ends keeping free from rust, is excellent.

"In this age of germ discoveries and theories, the water used should be boiled, or at least carbolyzed; especially if it is derived from the Schuykill. Where there is inflammation, the lead and laudanum wash is almost always useful. As an ointment, Goulard's cerate is useful. In sluggish ulcers of a specific character, I have found

an ointment of iodoform, acetate of lead, ether and cosmoline, preferable. As to the use of styptics, in the late war I had the same experience in the use of the persulphate of iron and Monsel's salt as has been mentioned, namely, the formation of mud-like masses. I have been troubled with the same collections in arresting epistaxis, and have found that the removal of the mass would bring on a fresh hemorrhage. In such cases, I have found that the inside, the fatty part, of a bacon rind, smeared with tannic acid, or a common, soft lamp-wick, similarly treated, and pushed into proximity to the part affected, arrested the hemorrhage at once, without any after-trouble."

Dr. Davis: "I have seen the straight splint, without padding, used quite considerably in one of our hospitals, and it always flattens out the surface very much, and often causes ulcerations of the projecting bony points, as the knuckles, wrist, and condyles. Cotton has been advised, instead of oakum, as a packing material. Oakum, I think, is better, as it does not pack so quickly, and retains its elasticity longer. Instead of extending the dorsal splint up the arm to prevent its turning, as suggested by Dr. Packard, the end near the elbow may be cut away on its inner side, leaving a projecting arm on its outer side, which passes backward beyond the humerus, thus preventing the splint rotating. In using a straight dorsal splint for fractures of the forearm, I have followed the plan of Roser, of Marburg, who extended the splint beyond the flexed wrist, and filled up the space between the back of the hand and splint with wedge-shaped pads. Bond's splint is often unsatisfactory, and even dangerous, from its tendency to flatten out the ball of the thumb, and twist the thumb backwards. I have seen some marked examples of this."

Dr. Dulles, in closing the discussion, said:

"Mr. Gough used to say, in the introduction to one of his lectures, that he selected his subject as a peg on which to hang his thoughts; in like manner, I feel that, if my paper has served no other purpose, it has been useful in furnishing a peg on which those who have followed me have hung very valuable thoughts. The hour is too late to permit a reply to all the opinions which have been expressed contrary to those of my paper, and, besides, in all of them I have only received the discussion, and in some the correction, which I asked for. One or two points, however, I would briefly refer to. First, as to the use of the hypodermic syringe, instead of the exploring needle. I have used the former at times, but I prefer the latter, because it is easier to clean, and I feel a little safer in employing it for this reason. Second, as to the treatment of painful ulcers. I have found it very useful to cauterize these—which in a large number of cases are syphilitic—thoroughly with strong nitric acid, and then dress them with oil or an ointment. According to my observation, this is usually followed by complete relief from pain as soon as the pain of the application, which does not last long, passes away. Finally, in regard to the production of ulcers by the straight splint, which has been mentioned as an objection by one of the speakers. I think it is safe to say that, whenever a surgeon finds the use of any apparatus causes ulceration, it is wise for him to abandon it. But, in my own experience, this result has never followed the use of the straight splint. Further, as to the efficiency of the splint; I have used it now for about three years, without accident, and with such good results that, notwithstanding any theoretical considerations to the contrary, I have no hesitation in continuing to use it, or in recommending its use."

## EDITORIAL DEPARTMENT.

### PERISCOPE.

#### Traumatic Tetanus.

The *London Medical Times*, March 14, 1885, says that Prof. Verneuil, in a clinical lecture delivered at La Pitié (*Gazette des Hôpitaux*, January 31), observed that a long time had elapsed since a case of traumatic tetanus had presented itself in his wards, when a youth, in an otherwise good condition of health, was brought in with a moderate amount of trismus which had supervened ten days after his finger had been crushed. The attack was moderate, and the robust frame and age of the patient were in his favor; still, he was suffering from tetanus of traumatic origin, and was therefore placed in Bonnet's apparatus in order to secure absolute immobility of his body, which was kept at a constant and elevated temperature by being completely enveloped in wadding. Large doses of chloral were also at once administered—opiates and morphia being held in reserve in case the chloral should not suffice. At

the same time he was suitably fed, and was ordered to be gently purged should constipation supervene. "Such is my usual mode of treating mild cases of tetanus, keeping the patients in a state of absolute repose, because it has been demonstrated that any movement, friction, or external irritation, aggravates by reflex action the tetanic phenomena. In the same way the maintenance of a constantly-elevated temperature has been shown to be highly useful, and this has sometimes been sought to be accomplished by means of vapor baths and similar means; but the very act of drying the patient on leaving the bath proves a source of irritation. The employment of wadding has also the object of preventing any chills occurring in those subjects who, by the fact that they are tetanized, are liable to a more or less abundant transpiration. I first had recourse to chloral in consequence of its useful effect in delirium tremens, and in its employment I have been very successful. Since that time, indeed, its use has become very common.

During the war of 1870-71, when, unfortu-

nately, we had occasion to observe numerous cases of tetanus, the treatment I have indicated was successful in 50 per cent. of the cases. Curare, morphia, belladonna, etc., had been tried, but these different agents were only successful in a case or two, now and then. Chloral, on the contrary, is a medicinal agent of the first order, and the failures which have attended its use in some cases are due either to its having been badly administered, or to its not having been absorbed. The question therefore arises as to how it should be given, and for how long a time. There is no precise dose, but under its influence the patient must be plunged into a constant sleep. Some persons have said that chloral is a toxic agent capable of producing gastric accidents, and recommend its being administered by intravenous injections. For my part I do not believe this, and I have never found any accident result from its employment, so that I protest against these injections, except under circumstances to be presently mentioned. I give it by the mouth, and if by chance it is not supported by the patient, I then resort to the rectum. The primary indication is to plunge the patient into a kind of continuous coma—a coma which in no wise interferes with his alimentation. But it must be well borne in mind that it is not sufficient to give the chloral for a few days in order to cut short the tetanus and obtain a cure, under pain of soon witnessing relapses of the disease. On the contrary, it must be continued during a mean period of from 15 to 18 days. I have seen tetanic accidents supervene after 10, 12, or 15 days of treatment, and was nearly losing a patient on the 18th day in consequence of my having suspended the administration of the chloral on the 15th day. To sum up, give sufficient doses, and prolong them at least for 15 days, if not more, and suspend them only after having progressively diminished the dose, decreasing this, for example, from 12 or 15 grammes, to 10, 8, or 7 grammes per diem. We must also bear in mind that, in some individuals, chloral is not absorbed. The fact is easily determined, first, by the persistence of the symptoms, and secondly and especially by examination of the urine, in which when it is absorbed it is found in its natural condition. If, when given by the mouth, it is not absorbed, and the same result follows a trial by the rectum, then intra-venous injections may be resorted to. As a general means of treatment, I reject these injections in consequence of their great danger, chloral having the power of inducing with the greatest facility terrible thromboses and emboli. Moreover, it is really not possible to administer these injections to the same patient four times per diem during a period of 18 days. \* \* \* \*

Our patient is at the present time in a satisfactory condition, taking his nine or ten grammes of chloral per diem, and opening his mouth to the extent of twelve or thirteen millimetres. The treatment must not be relaxed on this account, but continued in all its vigor. If, as I hope, this patient should be cured, it will be said, perhaps, that the case is a slight one, that the tetanus came on only tardily, viz., the tenth day, and that the chances of cure were so much the greater. This is a profound error. Tetanus which is tardy in its advent, like that which is slow in its progress,

may very well, all of a sudden, assume great gravity, and carry off a patient. What constitutes its gravity is its localization, the muscles playing a very unequal part in life, according to the region which they occupy. The whole body may be tetanized without danger, as long as the muscles of the larynx, of the pharynx, of the lungs, and of the heart are not invaded; while, on the contrary, if any of these are seized alone, death may supervene with the greatest rapidity from suffocation, dysphagia, or spasm of the glottis. When phenomena like these supervene, two means are at our disposal: first, the continuous electrical currents by which I have been enabled to save patients who were on the point of succumbing; secondly, tracheotomy, which has also in these cases furnished me with some remarkable recoveries. Dysphagia is also one of the most serious of accidents, for neither medicines nor food can any longer be taken, and we have spasms similar to those of hydrophobia. I have tried on such an occurrence to pass the œsophageal tube, but without success; and if I found myself again in the presence of so marked a case of dysphagia, I should certainly not hesitate to practice gastrostomy in order to be able to feed and administer medicine to the patient, everything being, so to say, admissible in such cases."

#### Jaborandi as a Galactagogue.

Dr. Charles Wesley Rook thus writes in the *Jour. Am. Med. Ass.*:

Mrs. J. B. S., a primipara, confined January 1, 1884. Labor natural and comparatively easy; child, female, average size, and well developed. As the breasts secreted no milk, the child was artificially nourished for a few days. The mother and child progressed well until January 6, when I was hastily summoned, and found Mrs. S. suffering severely from headache, high fever, the surface of the body being hot and dry, pulse 130 per minute, and her breasts more tense and painful than they had yet been. Not having with me anything that would give her relief more quickly, or better meet the indications present than the extractum pilocarpi fluidum, she was given a  $\text{m} \times \text{ij}$  dose, with directions for its repetition every half hour until free diaphoresis was induced. The desired effect followed the third dose.

Simultaneously with the appearance of the perspiration and the increased flow of saliva, the milk began flowing in a stream from the left breast, and so continued during the active stage of diaphoresis. On the following day, while the skin was yet moist from the jaborandi received the evening previous, milk began flowing from the right breast.

At no subsequent period has that little child lacked nourishment. In the discussion following the reading my paper, with reference to the case just mentioned, this question was asked: "Don't you think the milk was just about ready to be secreted, and that its secretion would have occurred soon without the use of jaborandi?" I answered: "That, as the secretion was not established before, and occurring in such abundance upon the exhibition of jaborandi, I naturally attributed this sudden increase of functional activity to the jaborandi."



Since then, I have administered jaborandi in four cases in which there was a deficiency of milk secreted, with the intention of increasing the supply, and with results, in each case, nearly as marked as in the one reported. It is to neither of these cases that I ask your attention, but to another case in which I claim strong circumstantial evidence, if not proof positive, concerning the galactagogue action of jaborandi.

Mrs. L. S. M., who is in feeble health, weighing less than 110 pounds, is thirty-eight years of age, been married fifteen years, and has given birth to nine children, five of whom are now living. Mrs. M. furnished an abundance of milk for the nourishment of her first child, but on account of a failure of her supply of milk, the cause of which I could not learn, she was not able to nurse either of her next seven children, which in lieu of their mother's breast received the bottle. Of these seven there yet remaineth three little pale-faced children as living witnesses to the preservative power of the bottle.

January 3, 1885, I was called to see Mrs. M. On my arrival I found the labor just completed. An average-sized male child was born, and being yet attached to the cord, the latter was severed, and the mother and child made as comfortable as possible. Inquiry concerning the condition of the breasts was made, when the history as above noted was elicited. On physical examination of the mammary glands, no signs of functional activity could be observed within them. Directions were accordingly given for the artificial feeding of the child. I then told Mrs. M. that if her milk did not appear within a few days I would give her some medicine which would cause the secretion of milk in abundance. Three days after confinement, the mammary glands yet remaining inactive, she was ordered  $\mathfrak{M}_{xxx}$  doses of extract of jaborandi fl. every half hour, until free perspiration and salivation were produced. The effects were attained upon the exhibition of the fifth dose. The only noticeable effect upon the mammary glands was a slight enlargement. My patient, being very weak, was allowed an interval of one day in which to somewhat recover from the depressing effect of the free diaphoresis; then, as the condition of the mammary glands remained unchanged, she was given four  $\mathfrak{M}_{xxx}$  doses at intervals of one-half hour, when the usual effect upon the skin and salivary glands was produced, while the following effect upon the mammary glands was noted: On this second exhibition of jaborandi the breasts rapidly filled, becoming tense and painful, but the pain and tension were soon relieved by the free flow of milk from each breast.

Here ended, for the present, any further necessity of artificially feeding the child.

Three weeks later, I was called to see the child, and was informed that more milk was secreted than the child could nurse, the excess flowing freely from her breast. One week later I called in order to obtain a later report for my paper, and was surprised to find that the milk supply had failed, and that the child was again nursing the bottle. I also learned that my patient had had, ever since the first appearance of the milk, a great fear that the supply would soon be exhausted, and wanting to do what she could to

continue the secretion, had taken from the commencement, and without my advice, a daily  $\mathfrak{M}_{xxx}$  dose of ext. jaborandi fl. The drug was ordered discontinued for two days, at which time, the mammary glands exhibiting no signs of their former activity, she was given three  $\mathfrak{M}_{xxx}$  doses of ext. jaborandi fl., at intervals of half an hour, which produced free perspiration, salivation, lachrymation, enuresis, and, as we had hoped, a free lacteal discharge from each breast. The further use of the drug is forbidden. Nearly two weeks have elapsed since the last exhibition of the ext. jaborandi fl., and my patient is secreting an abundance of milk. From my own experience with this medicinal agent, I am convinced that, in addition to the properties which make it a valuable diaphoretic, jaborandi has, first, a special stimulating effect upon the mammary secretions; second, the continued exhibition of the agent will be followed by functional exhaustion of the mammary glands; and third, a functionally exhausted mammary gland may, after an interval of rest, be again stimulated to activity by the proper exhibition of jaborandi.

#### A Needle in the Bladder Simulating Stone.

Mr. Henry W. Freeman reports this case in the *Lancet*, February 21, 1885:

A little boy, under four years of age, was brought to the out-patient department of the hospital by his mother on November 26, 1884, suffering from bladder irritation, with symptoms of stone. The history elicited by Mr. Roberts, the house-surgeon, ran as follows: Difficult micturition, with screaming; pain commenced in August, 1883, accompanied with blood, sometimes more, sometimes less; and this condition of things continued for a year, when the bleeding ceased, and micturition, although painful, became bearable. The child had been sounded frequently for stone during this period, but nothing had been discovered, and as the symptoms were thought by the medical man in attendance to be due to phimosis, the boy was circumcised twice, but no relief in any way resulted.

On admission into the hospital, Mr. Freeman, in conjunction with his colleague, Mr. Ransford, explored the bladder, under chloroform, and on passing a sound into the bladder a grating noise was heard when the instrument was held horizontally and in contact with the posterior portion of the fundus of the bladder, as if a phosphatic calculus were embedded in its coats; but when held vertically, and the curved portion rested on the most inferior portion of the organ, a distinct chink was heard, as if a smooth stone were struck. This, however, was very limited in extent, and it was noticed that the point of the sound could not be got round the foreign body, to determine its size or shape. It was fixed. Digital examination of the rectum revealed nothing. The general consensus of opinion was, that a phosphatic calculus had become embedded in the walls of the bladder, and accordingly lateral lithotomy was performed by Mr. Freeman on December 6. On opening the bladder, a sharp body was felt sticking in the anterior portion of the prostate, lying obliquely over the trigone, and resting against the posterior surface of the fundus, and encrusted

with calcareous matter. A long pair of flat-pointed dressing forceps were introduced, and, after a little maneuvering, a small-sized "darning-needle," measuring  $\frac{1}{2}$  inches in length, and covered for more than an inch with phosphatic deposit, was extracted. The deposit was  $\frac{3}{4}$  in. in thickness, and included the sharp point, which was as thickly covered as the rest of the shaft; but the eye—blunt end—of the needle, for three-eighths of an inch, was smooth and free of deposit. There was no hemorrhage. The child passed his urine by the urethra on the thirteenth day after operating; and at the end of a fortnight, the urine becoming excessively ammoniacal—due, as pointed out by Dr. Ray Lankester, to the presence of bacteria—and with a temperature of  $102^{\circ}$ , he was put on quinine, which speedily settled the thing in forty-eight hours; and, besides stating that the external wound was healed at the end of the third week, and that he contracted measles at the end of the fourth week, there is little to record, as he left the hospital well before the sixth week had expired.

*Remarks by Mr. Freeman.*—Cases have been recorded where lithotomy has been done in boys where portions of stone-pencil have found their way into the bladder by the urethra, but a needle in the bladder of a child, by whatever route it may have got there, followed by lithotomy for its removal, is of rare occurrence. The position of the needle in this small bladder seemed to me as if that portion sticking in the prostate dammed up in a measure the internal meatus, and the little constant whirlpools of urine around this portion of about half an inch explains why it was bright and gave the metallic ring when struck with the sound. We knew nothing of the needle history until after the operation had taken place; but the mother was positive that a "darning-needle" such as we extracted had been swallowed by this child before her own eyes on Whit-Sunday May 13, 1883. The needle, according to the mother's statement, was in the child's body about eighteen months; and the question arises how it found its way into the bladder. My first impression was that the needle had been thrust along the urethra by some precocious nurse-girl, but the mother asserts that the child had never been out of her hands. Then came the history of its being swallowed; and if this was the identical needle, how did it get into such a receptacle as the bladder? Did it pass into the bladder by the rectum or by the small intestine? or, bearing in mind the anatomical relations of the ascending and descending colon to the kidneys, did it pass through the bowel into the pelvis of the kidney and thence by ureter into the bladder?

#### Enteritis and Gastritis Successfully Treated with Ergot.

Dr. Alexander R. Becker thus writes in the *Boston Medical and Surgical Journal*:

"Although completely retired from practice for several years, I had occasion, a few months ago, to see what I could do for a gentleman who had been suffering from chronic enteritis for more than four years. This was only one of the protean forms of gout to which he had long been a martyr; but it had persisted, with almost no interruptions, in spite of great and intelligent diet-

tary care, and occasional attempts at specific treatment. In fact, the only interruptions during this long period occurred when the gout appeared "frankly" in one or both feet; but, on the other hand, this had been much less frequent since the enteritis set in than formerly. He had also many times suffered very distressingly from gastric catarrh and dilatation, and several times from acute gastritis.

At the time I speak of his appetite was fairly good, and gastric digestion was fairly well accomplished. But his bowels were in a condition to absorb his whole time and attention. Besides the pain, which was almost constant and frequently severe, and the dejections, which averaged from three to eight or nine daily, he suffered intolerable annoyance from flatulence. The various astringents, mineral acids, arsenic, milk, and lime-water, etc., had been fully tried, and I could find no fault with his very carefully arranged diet.

It was evident that the whole intestinal canal was excessively debilitated, and probably more or less dilated. He had also mitral disease, and dilatation of the heart, and had at times, although not very recently, suffered terribly from asthma. Was there not probably a general arterial debility? and might not ergot strike at the root of this trouble? As he is exceedingly susceptible to medicine, I ordered only  $\text{mxxx}$ . of Squibb's fluid extract three times a day, and in a week his bowels were almost well, and have remained so ever since, requiring only an occasional Pil. Rhei. Comp. to prevent constipation. A week or ten days later, he had a very severe attack of gout in the left foot, lasting three weeks. Since then the gouty tendency has been kept down by potass. bicarb. (gr. v., in a glass of claret and water, with his lunch and dinner), and he has been more comfortable than for years.

So far, so good. There is nothing remarkable about the case, except the delightfully prompt and perfect manner in which the medicine answered any hopes I can hardly say my expectations.

But a few days ago I found that he had been over-indulging his really hearty appetite during the holiday season, and had thereby brought about a severe attack of gastritis. Any food, however bland, brought on immediate and intense pain, which was only partially relieved when the food had left the stomach, which was already considerably dilated. (It is a fact, by the way, that he has developed what might be called gastric gymnastics, for, by lying upon the right side and contracting the abdominal muscles—and he believes the muscular coat of the stomach itself—he is able to force the food up from the depths of the dilated organ, and through the pyloric orifice; and he is made perfectly aware of the success of his efforts by the hot, burning, rasping pain, caused by the passage of the food through the inflamed orifice.) This condition had already lasted three days, and was becoming worse. I at once put him upon the ergot again, and in the same doses, and in forty-eight hours he was completely relieved, and able to bear a reasonable meal without discomfort.

From the previous experience, this is just what I fully and confidently expected. But I am led to report the case by the fact that I cannot find

the least hint or suggestion of such an application of ergot in any book within my reach—even in such as treat fully of acute and chronic gastritis, and recommend (slightly and passingly) ergot in certain forms of chronic diarrhoea. My possibilities of reference, however, are limited here, and I have not the least ambition to claim priority in the matter, but I am anxious to draw the attention of physicians to a reasonable and probable remedy for this very painful and distressing condition, and beg them to experiment with, and report upon it. May it always—as in this one case—"work like a charm!"

## REVIEWS AND BOOK NOTICES.

### NOTES ON CURRENT MEDICAL LITERATURE.

—Under the title of "The Jenner of America," Dr. Wm. M. Welch of Philadelphia, gives a biographical sketch of Dr. Benjamin Waterhouse, of Cambridge, Mass., one of the earliest apostles of vaccination in America.

—In an Inaugural Address on our table, Dr. A. Jacobi, of New York, criticises with some severity the prevailing craze to refer all diseases to microbes and bacteria. The same writer forwards a reprint on "Typhoid Fever in the Young," replete with valuable, practical suggestions.

—The Report of the Committee on School Hygiene in Tennessee, by Dr. D. F. Wright, of Clarksville, Tenn., has many wise suggestions in it on the general hygiene of education.

—Dr. A. S. Roberts, of this city, in a reprint before us gives a clinical report of six cases of "Charcot's joints," or spinal arthropathies. Of the differential diagnosis of these affections he says:

"They may be readily distinguished from the common inflammatory diseases of the epiphyses, by the total absence of the reflex neural phenomena—i. e., of pain, both reflex and local, the apprehensive state regarding joint movements, and the reflex or tetanic spasm of the muscles, always associated with joint osteitis. Abscess is never directly associated with the arthropathies, unless incident upon direct traumatism.

"They are more difficult to differentiate from malignant affections of the articulations; but a careful inquiry into the history and course of the lesion, and the presence or absence of central disturbance, are our most reliable guides.

—Dr. R. M. Smith, Professor of Comparative Physiology at the University of Pennsylvania, defends vivisection on the new plea (and a sound one) that it is beneficial to animals themselves. He pertinently says in a reprint before us:

"To prohibit resort to experiment would be at once to doom animals, which we are bound to

protect, to the endurance through all time of diseases which might otherwise be overcome. This has been our experience in all diseases which have not yet been capable of experimental study, and we may reasonably hope that the future will greatly extend the scope of our field of action. One thing is, however, sure: Experiment is the only possible avenue by which such success can be reached."

—Dr. Isaac Ott, of Easton, Pa., continues his valuable "Contributions to Physiology," from his private physiological laboratory. The sixth part, which is before us, contains papers on the action of convallamarin, on intestinal peristalsis, on the splanchnics, and on the relation of the nervous system to bodily temperature. These investigations are most praiseworthy, and should secure for their author honorable recognition from the profession.

### BOOK NOTICES.

**The Physician Himself and what He Should Add to his Scientific Acquirements in Order to Secure Success.** By D. W. Cathell, M. D., etc. 8vo., pp. 284. Cushings & Bailey, Baltimore. Price \$2.00.

The success which Dr. Cathell's work has achieved is merited by the care with which each edition is revised, and the general good sense, honest feeling, and proper spirit which animate the whole. We have before spoken of it as a highly commendable treatise, and we take pleasure in repeating and emphasizing this commendation at the present time, when the fourth edition is offered to the favor of the profession.

**The New Local Anæsthetic, Hydrochlorate of Cocaine; and Etherization by the Rectum.** By Laurence Turnbull, M. D., Ph. G., etc. Illustrated. 8vo., pp. 76. Price, 50c. Philadelphia: P. Blakiston, Son & Co., 1885.

Of the various monographs on this now famous novelty in therapeutics, we can recommend the above as the best which has yet appeared. It describes the plant and its preparations, its chemical constituents, its discovery, various applications, and modes of administration, and adds special directions for its use in different affections and on different tissues. The author has given close attention to the literature of the subject, and little or nothing has escaped his attention.

The second part of the work is on anæsthesia by the rectum, an important and novel departure in anæsthetic art, and one which, as the author shows, is capable of extensive use, though associated with serious possibilities.

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The lecture of Colonel Ludlow on our water supply, which we noticed last week, has created a most unexpected, but a very salutary excitement.

Great reforms have been always accomplished by persistent agitation, and in this case the agitation has been furnished ready made by the foolhardy and rash action of Councils in criticizing Colonel Ludlow.

The *gauntlet*, thrown down by Councils, has been taken up by every newspaper in this large city, and with the single exceptions of two insignificant and blackguard Sunday sheets, the action of our governing body has been most justly and most severely condemned.

One paper (the *Bulletin*) has a most scathing editorial, in which it draws a comparison between the efficient Chief of the Water Department, who is doing all in his power to improve the sanitary condition of that portion of municipal government under his control, and the Chief of the Highway Department, who has, so says the article, not only neglected to compel his contractors to fulfil their duty, but has absolutely endeavored to excuse them for non-performance of duty and even to justify their negligence on the ground that the streets could not be cleaned in *winter*.

Let our profession tell Mr. Estabrook, in plain words, that our patients *can have* diphtheria and other filth diseases in winter, and that we, as a body, and a very big body, and an intelligent body that ought to be heard and heeded, would request him to properly perform his duty or to resign and allow some one to occupy his *fat* position that will do their duty.

Our streets are as bad, and as foul, and as unhealthy as is our "water supply."

We have had enough of the "*hush*" policy; the matter should be made so public and so notorious that our people would be forced to remedy our sanitary defects.

But, recently, within a week, we were startled on coming home, in the evening, to see a patent sweeper at work on Broad street (our most prominent thoroughfare). Now, this street is compar-



actively clean, and no doubt our inefficient Chief Street Cleaner will point to this *monument of his fidelity to duty* as a rebuke to his traducers; but let us look into the less prominent streets, and into the courts and alleys, with which, unfortunately, this good old friendly city of Penn abounds, and we will find piles of garbage, three and four feet above the level of the grade of the alley, and as we pass, will see some big, fat, bloated, ignorant, specimen of femininity adding more slops to those already accumulating.

This is not a fancy picture, drawn from the imagination; it can be seen at any time, in sections of the city not far remote from the dwellings of the aristocracy.

Now, we physicians all know that our city is in a very bad sanitary condition; do we not also know that we can exert a great deal of influence if we want to do so?

When we remember how much confidence the majority of patients place in the family physician, we cannot help but realize that a wonderful improvement in our sanitary condition could be made did but physicians combine their powerful influence with the public.

Let us at least endeavor to influence public opinion sufficiently to force our "Highway Chief" to clean the courts, alleys, and more secluded streets of this cholera-threatened city.

In conclusion, we would say that our sanitary condition is no worse than that of all the *large* cities in the country; infinitely better than New York, it is worse than the little town of Pullman, in Illinois; but that is not the point—we want to have the *best* sanitary city in the country.

It may be *Utopian* in its conception; it is both possible and feasible, if our *people* will go to the ballot-box and give us good government.

#### QUESTIONABLE APPLICATIONS OF PHYSIOLOGY.

A bill has recently been brought before the Legislature of Pennsylvania which is a curious exemplification of the manner in which some persons would attach medical science to the car of reform. The bill was to the effect that physiology should be taught in the public schools of this

commonwealth; but that no text-book should be admitted that did not in every section point out the detrimental effects of alcohol on the human system.

The object, be it observed, is not to give correct information of the effects of alcohol, mentioning the beneficial as well as the prejudicial results from its use. But the physiological text-book contemplated is really to be a part of a temperance propaganda in which truth is to be of secondary importance.

We are altogether in favor of temperance, and are ready to advocate any honest plan by which it can be furthered; but we have a fixed opinion that falsifying facts and presenting garbled and untruthful statements, never yet permanently helped a good cause. There are many very able physiologists who believe and teach that a small amount of alcohol daily is a benefit to the health, and a useful stimulant to the mental and physical powers. These physiologists may be in error; but so may their opponents. And as those who favor the moderate use of alcohol are undoubtedly in the majority, there is to that extent a probability that they are right.

The fair statement of the question would therefore be, that while the general tendency of physiological teaching to-day is that small amounts of alcohol are harmless or beneficial, there is a limited but highly respectable number of teachers who consider it injurious in any quantities.

Total abstinence has not gained ground of recent years. The official returns from Washington show that conclusively. In proportion to the population there is more liquor of various kinds consumed now than was the case twenty years ago. We charge this unfortunate fact, in a measure, to the Prohibitionists themselves. To impress their doctrines, they hesitated not to falsify facts, and grossly exaggerate medical results. This came to be discovered, and then their words lost all weight, and their warnings were unheeded even where well-founded.

Let reformers learn that the best of all reforms is to avoid untruthful, exaggerated, one-sided statements. Nothing hurts a cause like a discov-

ered lie. The noble cause of temperance needs no such disreputable allies.

#### MEDICAL MEN AND MEDICAL SOCIETIES.

We have been tempted every once in a while, after coming away from a meeting of a medical society, to vent our views on the question of the interest taken by medical men in their societies, as evidenced by the attendance upon the meetings.

At a recent meeting of a very prominent society twenty sleepy members were in attendance, and before the meeting was over some of these had slipped away. It is a rare sight to see the hall of any medical society respectably filled, unless it be on some occasion when a supper is to follow the meeting, and then the majority of the members come straggling in late. As we take it, medical societies are supposed to be scientific, and not gastronomic organizations. Of course, we do not mean to belittle the importance of catering to a man's stomach, by no means; for we can well remember a crude anatomical diagram (seen many years ago), wherein, (the thoracic and abdominal viscera being represented,) it could be seen that the nearest way to a man's heart is through his stomach; but we ask whether in scientific bodies a little catering to the mind would not be more appropriate. It was said (very bluntly, it is true, but we fear very justly) by the chairman of the committee of arrangements at the last meeting of the Pennsylvania State Medical Society, that the majority of the papers there read were not worth listening to. Is not the same true of many of the papers read before medical societies? We are not now speaking only of our local societies, but of all the societies of the land, even up to the august American Medical Association. Does not the character of the papers read account in a great measure for the emptiness of the seats? Of course, many men read papers to advertise themselves; but why do they want advertising and notoriety among the profession, a body so notoriously jealous that it is only requisite for a man to obtain some prominence to make for him many enemies, and to invite back-

biting and detraction. Many of the papers read before the societies are mere re-hashes, with no earthly use for their delivery save the author's, or rather *compiler's*, thirst for notoriety. We do not wish to *growl*, but we would suggest to those who wish to attract the profession to the meetings of the societies, to spread for them a rather more select mental repast than is usual.

### NOTES AND COMMENTS.

#### The Treatment of Pneumonia.

Dr. Edwin T. Doubleday publishes in the *Med. Record* (March 28, 1885,) a summary of two hundred and fifty cases of lobar pneumonia treated in the New York Hospital, and from it we extract the following paragraph on treatment:

"Aconite has been used in a few cases. Quinine has been used extensively. When given early it was apparently of marked benefit in giving a mild form to the pneumonia, and in a very few cases cutting short the disease. When given late, in large doses (gr. xv. to gr. xxx.), for reducing temperature, it has had, in some cases, a marked depressant action on the heart. When the case came in before consolidation had taken place, a dose of calomel (gr. v. to gr. x.) was frequently given. I have seen typical physical signs of the stage of congestion (crepitant rale, etc.) in two cases disappear under this treatment. For the delirium, the bromides, chloral, and morphia, very sparingly, have been used. For pain, opium, generally in the form of liquid Dover's powder. For dyspnoea, small doses of atropia, quebracho, dry cups, and when the consolidation is extensive (double pneumonias), inhalations of oxygen (ciiii. to cv. p. r. n.). For stimulants and heart-failure, ammonium carbonate (gr. v. q. 3 h.), fresh tr. digitalis (gtt. v. to gtt. xx. q. 3 h.), and alcohol. Patients are generally put on stimulant treatment as soon as admitted, and the alcohol is rapidly increased as long as the pulse remains poor and the tongue dry, or until the breath becomes alcoholic. Whisky is the form of alcohol used. The amount of alcohol needed varies much. Some cases required twelve to eighteen ounces in the twenty-four hours. Lately antipyrin has been used for high temperature. It was given in powder, gr. xxx.; and at the end of an hour, gr. xv.; if required, gr. xv. were given at the end of the third hour. It sometimes caused slight sweating and slight cardiac depres-

sion. It gave rise to no gastric disturbances. Temperature fell one to three degrees, and staid down one to eight hours. The antipyrin was used in twelve cases."

The days on which patients died most frequently were as follows: Eighth day, 17 cases; sixth day, 13 cases; fifth day, 12 cases; ninth day, 10 cases; fourth, seventh, and tenth days, 9 cases each.

In one case the patient, while convalescing, suddenly cried out, complained of great pain in the chest and dyspnea, and rapidly became cyanosed. Oxygen caused the cyanosis to disappear. The heart was stimulated, but the patient died in two and a half hours of heart failure.

General results, according to age:

	Complicated.		Uncomplicated.	
	R.	D.	R.	D.
1-10 years.....	.....	.....	2	.....
10-20 years.....	3	2	13	3
20-30 years.....	23	15	35	15
30-40 years.....	13	27	15	5
40-50 years.....	6	25	6	4
50-60 years.....	1	8	5	4
60-70 years.....	2	.....	5	1
70-80 years.....	1	.....	.....	1

According to the class of case: Uncomplicated cases, 78, or 68.4 per cent. recovered; 36, or 31.5 per cent. died; complicated with pleurisy, 18, or 62 per cent. recovered; 11, or + 37 per cent. died; cases with other complications, 34, or 31 per cent. recovered; 75, or 68.8 per cent. died; of all cases, + 51 per cent. recovered; 48 per cent. died, per cent., excluding those moribund on admission, 62.31 recovered; 37.69 died.

He attributes the high death-rate to the following causes: The large number of complicated cases, the large number of those past treatment and moribund on admission, the patients being alcoholics as a rule, and finally the late day of admission to the hospital.

#### Poliomyelitis Anterior in Adults.

Dr. Gustavus Eliot, of New Haven, records, in *The American Journal of the Medical Sciences* for January, a carefully-noted case of poliomyelitis anterior occurring in an adult. The progressive development of muscular weakness, unattended by febrile symptoms, but accompanied by diminution of the size of the limbs, by abolition of the patellar tendon reflex, and by sensations of numbness, yet without loss of tactile sensation, and without interference with the function of either the rectum or bladder, rendered the diagnosis clear and indisputable.

A large proportion of the reports of cases which have been published contain little or no information concerning the details of treatment, and in many others the multiplicity of drugs prescribed renders any reliable conclusions in regard to the effect of each almost impossible. Bromide of potassium, belladonna, strychnia, ergot, and iodide of potassium, have been most often employed, and most praised. Counter-irritation, baths, rubbing and exercise, and electricity, are also included as important elements in most plans of treatment. From a careful study of the results of various plans of treatment, as reported by various observers, Dr. Eliot deduces the following conclusions:

1. Counter-irritation and ergot should be employed early in every case.
2. Massage and electricity should be used as soon as there is any evidence of improvement.
3. Little, if any, effect can be expected from iodide of potassium.
4. Belladonna and the bromides should be used only with extreme caution.
5. Strychnia should be entirely avoided.

#### Removal of the Coccyx.

To the New York Pathological Society (November 26, 1884), Dr. J. A. Wyeth presented the coccyx removed from a male patient thirty-six years of age, and a native of South Carolina, who came to New York two years ago for surgical relief. The patient received a fall about four years ago, striking upon the buttock. No peculiar symptoms developed at the time, but afterward he suffered occasionally from spasms of the sphincter ani muscle. He was examined by a physician who said he detected a fissure of the anus, and operated upon the patient with a knife, but the disease was not relieved, and he was again operated upon for the same fissure by stretching.

Dr. Wyeth saw the patient about six weeks ago, and detected that the coccyx had been displaced forward, and was projecting directly upon the posterior wall of the rectum, so much so that when the finger was introduced he found a kidney-shaped passage, two and a half inches above the anus. In the meantime, the patient had become filled with the idea that his case was beyond help. Dr. Wyeth removed the coccyx, and for two or three weeks after the operation the patient was relieved, and Dr. Wyeth believed that recovery would ensue, although the patient was unwilling to admit that he was cured.

**Bacteriology Run Wild.**

From a foreign exchange we learn that at the anniversary meeting of the Royal Microscopical Society, held recently, the president, the Rev. Dr. Dallinger, gave a lucid and exhaustive description of what is believed to be a septic organism not hitherto described. The new organism first came under notice about four years ago in an exhausted maceration of codfish, which had decomposed in a broth made from rabbits. The organism is of suboval shape, and measures  $\frac{1}{10000}$  inch in length by  $\frac{1}{15000}$  inch in breadth; it has no fewer than six long thread-like flagella, each of which is three times as long as the body. The mode of ordinary multiplication by fission presented features of much interest, owing to the problem of the formation of the new and numerous flagella. Multiplication appears also to take place by means of spores. A kind of fusion of two individuals was observed, the movement of the organism being continued during the fusion, but gradually slackening afterwards, when the body breaks up rapidly into very minute portions. The "spores" thus formed were afterwards observed to grow up into the likeness of the parent form, and shortly after to multiply by the ordinary process of fission.

**Urticaria and Dyspepsia.**

The relation between these two affections is well illustrated in a case reported in the *Med. Press*, by Dr. Banham, who gives brief notes of a case of urticaria occurring in an intelligent woman,  $\text{et 25}$ , which had recurred almost daily for two years past, and which had been accompanied frequently with dysphagia to such a degree that when she sat down to a meal, swallowing was often found impossible, and the attempt induced such serious attacks of choking that those around were greatly alarmed. The patient had never shown any indications of hysteria. Dr. Banham saw this patient for the first time three weeks ago. He gave her careful directions as to diet and attention to the state of the bowels, and ordered her a mixture of bismuth and *nux vomica*, to be taken before meals. Within a day or two the attacks of urticaria subsided, as well as the dysphagia. He thought it not impossible that the difficulties of swallowing had arisen from the mucous membrane of the throat being affected in a manner similar to that of the skin.

**Hæmophilia.**

Hæmophilia is an interesting disease, and one

well worthy of more study than it has received. A very interesting case is reported in the *Med. Press* by Dr. Gwynne of a boy aged 10, who was subject to this condition. This boy he had known almost from his birth, and had frequently treated for hæmorrhages from his fingers, tongue, nose, scalp, and various other parts of his body, caused by injuries generally of a very slight nature. The right knee was slightly contracted, and the lower extremity of the femur was much larger than its fellow. When about a year old he had knocked it when in bed, and in the morning it was found much swollen; since that time the condyles had become enlarged, and that knee has been weaker, and the hamstring muscles slightly contracted. He was an active boy on his legs, except when suffering from some of the effects of slight knocks. Dr. Gwynne has sometimes counted more than half-a-dozen ecchymoses on different parts of the body. His growth was stunted; his height is only the same as that of his brother, who is two years younger. There was no family history to account for this peculiar constitutional condition. His complexion is dark.

**A Rare Case of Sudden Death.**

Our pathological knowledge is certainly outstripping our therapeutical progress; we know now how to account for many hitherto unaccountable deaths, but we do not yet know how to diagnose many of these cases, or how to avert a fatal termination. One of the most singular cases we have heard of lately we find in the *N. Y. Med. Jour.* March 28, 1885, where we read that to the New York County Medical Association, Dr. Janeway presented the lungs and trachea of a child, two years and a half of age, which died suddenly while walking with its father on the street. He was indebted for the specimen to Dr. Jenkins. A mass of glands existed behind the sternum on the right side, producing tracheal stenosis of moderate grade, and above the bifurcation of the trachea was an ulcer which had been the bed of a cheesy gland found loose in the trachea below, where it had acted as an obstruction to the entrance of air, and thus caused death.

**Nerve-Stretching Extraordinary.**

The *Medical News* tells us that a recent number of the *Deutsche Med. Wochens.* records a case of successful cure of severe intercostal neuralgia in a woman by stretching the seven intercostal nerves on the right side from the third to the tenth rib. The patient, aged 60, had suffered from intercos-



tal neuralgia and mastodynia for seven years. The attacks were most severe at night, preventing her from getting any proper rest or sleep. The incision, commenced in the axillary line, was carried from the upper margin of the third rib backwards and downwards to the lower margin of the tenth rib. The nerves, when laid bare, were stretched both centripetally and centrifugally. The operation is stated to have been followed by immediate relief, and the return of sound sleep at night. We scarcely know which to congratulate—the surgeon or his patient; but in any case, sleep must have been peculiarly refreshing to the poor creature who had endured the stretching of seven intercostal nerves.

## SPECIAL REPORT.

### PROGRESS OF OTOTOLOGY.

BY LAURENCE TURNBULL, M. D.,

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(Continued from page 475.)

A report on the same subject—*Tinnitus Aurium*. By George C. Catlett, M. D., Superintendent of the Lunatic Asylum, St. Joseph, Mo. He makes special mention of the influence that aural diseases have upon the nervous and mental disorders. And he believes that neurologists and psychologists do not estimate its importance, or give it due attention in their examinations. The essay is a "condensed résumé of the pertinent literature of the subject;" but he has made some mistakes in regard to the names of his authors, such as "Moas," which should be "Moos;" "Itord" for "Itard;" "Weiber Seil" for "Weber Leil," and some others.

7. *Chrysophanic Acid in Cutaneous Affections of the Ear*.\* Dr. Streuquart (Jour. de Med.) reports five cases of eczema of the scalp, which affected the ears—two cases were acute eczema; two impetiginous eczema, and one chronic eczema of the auricle of each ear. All were completely cured by the internal use of chrysophanic acid in doses of two centigrammes a day.

8. *Exfoliation† of the Cochlea Without Deafness*. Prof. Grüber demonstrated a case at the meeting of the Society of Physicians of Vienna, Dec. 12, 1884, which would seem to go far towards refuting the opinion of Helmholtz, that loss of the cochlea is equivalent to loss of hearing power. The patient was a lad of 14 years, who had suf-

fered for four years with otorrhœa and polypus of the left ear. There was paralysis of the facial nerve. In removing the polypus, Prof. Grüber came upon the cochlea in a state of necrosis. Since the operation the patient has improved, the paralysis has almost disappeared, and the boy not only recognizes sounds, but distinguishes musical notes, by the affected ear." Prof. Grüber did not enlarge on the features of this interesting case, but it certainly affords food for suggestive thought, in reference to treatment of diseases of the ear.

Two similar cases have been observed, one by Dr. Cassells, Glasgow, and the other by Dr. Christineck, at Halle.

9. The Journal de Med. et Chirg. Prat., No. 9, 1884, gives Dr. Miot's treatment of *Acute Otitis and Rhinitis in Children*, in which he has employed atropine and obtained very beneficial effects. His method of administration is one milligramme of neutral sulphate of atropine dissolved in eighty grammes of distilled water, and two teaspoonfuls are given every three hours. "Atropine is particularly valuable in aborting coryza, and should be given as early as possible, as it serves to arrest the spread of the inflammation to the eustachian tubes or tympanum, and prevents the occurrence of otitis."

For adults similarly affected, one milligramme of sulphate of atropine may be dissolved in forty grammes of water, and given in the same doses.

10. A paper *On Syphilis of the Ear*, published in the *Annals des Maladies de l'Oreille du Larynx*, etc., May, 1884, by Dr. Jigu. He treats of syphilis of the external ear, middle ear, and internal ear, and auditory nerve respectively, giving his opinion to some length, and concludes his subject with hereditary syphilis of the ear.

This same publication (the September number, 1884), reports cases of Dr. G. L. Walton and C. J. Blake, *Of Aural Symptoms Occurring in Hysteria, and the Hysterical Element in Aural Disease*. There are unquestionably numerous cases in which the subjective symptoms of an existing aural disease are increased to an extent which gives them undue importance in the mind of the practitioner by the co-existence of functional cerebral disturbance evidencing itself in the train of symptoms to which, collectively, we give the name of hysteria.

13. "*Calomel in the Treatment of Otorrhœa*." By J. Gottstein, Breslau. Translated by J. B. McMahon, New York. "That the impalpable boracic acid satisfies these requirements better than other means, and that its introduction should be regarded as a positive advance in the treatment

\*Journal Am. Med. Ass., Jan. 17, 1885 p. 72.

†Lancet.

of otorrhœas, is proved by the universal recognition of its worth and the rapidity with which it has been adopted by aurists. While the advantages of this remedy are great, and I have learned to value them fully, it cannot be denied that the remedy fails in a considerable number of cases, and the result is often relatively tedious. This occurs not only in complicated cases (with destructive processes, advanced pulmonary phthisis, inflammation of the upper part of the tympanic cavity, and the perforation of Schrapnell's membrane), which Bezold has already excluded in his estimate of the value of the boracic acid treatment; but it happens also in simple suppurations, in which the result depends either exclusively or in great part on the maintenance of antiseptis. It is admitted that boric acid is one of the weaker antiseptic agents. It is on this account that various authors have sought the more efficient antiseptic methods of treatment suitable for the ear. As substitutes, iodoform and corrosive sublimate (Wagenhäuser) were proposed, and still more recently by Bürkner, red precipitate in conjunction with sublimate. The iodoform has proved satisfactory in no way. I myself have no experience with the red precipitate, but the communications of Bürkner establishes beyond doubt the very limited range of its utility. The sublimate, which has a most extended application in surgery on account of its powerful antiseptic properties satisfies only one requirement in the treatment of otorrhœa—namely, to render the ear temporarily aseptic. It does not fill the other equally imperative indication, to exclude permanently the disease germ as far as possible. So far as I can learn from the literature at my disposal, Wendt was the first to recommend calomel as a local application in purulent otitis. To what extent he has used it, I do not know. "Calomel is also recommended for insufflation into the ear," by Urbantschitsch. The same author also refers to the occasional favorable action of the mercurial preparations in general in purulent inflammation of the middle ear. Neither Wendt nor Urbantschitsch have employed it as an antiseptic agent. The latter includes it among the astringents. I have satisfied myself that the remedy is absolutely free from irritation to the mucous membrane of the middle ear; that it forms neither upon or in the mucous membrane any precipitate difficult of removal; that surprising results are often obtained under its use.

The method of procedure is as follows: The ear is, in the usual way, syringed carefully with a weak sublimate solution (one-tenth per cent.);

the residue of the secretions is forced into the external meatus by the employment of Politzer's method; and then removed by syringing; and finally, the ear is well dried with cotton. The calomel (vapore parat) is then blown in through a powder-blower,\* and the auditory canal closed as well as possible, by means of cotton. The further treatment is the same as with the boric acid.

There is surprising diminution of the discharge in the first few days almost without exception; in acute cases, however, which come early under treatment, the discharge of pus remains the same for from two to four days, and then undergoes a rapid decrease. I have never noticed any unpleasant effects, local or systemic.

Dr. A. Gottstein, of Berlin, has made use of the calomel treatment at Hartmann's Polyclinic. under its use a slight stomatitis was noticed in a weakly exhausted child. From this point of view there are to be considered fifty-seven cases, twenty-seven of acute, and thirty of chronic otorrhœa. Of the thirty chronic cases, thirteen were cured within the first ten days, seven between the tenth and twentieth days; between this and three months, seven; two remained uncured. The final result is not known in one case, which was beginning to improve. One of the unsuccessful cases had previously been treated with boric acid, and also with caustic, after the method of Schwartze.

Among the acute cases were some very severe inflammations of the middle ear. The following may serve as an example:

A boy of eight years was attacked with otitis, right at the beginning of an outbreak of the measles, left, two days after, both resulting in perforation and otorrhœa. In spite of careful treatment by the family physician, Dr. Goldschmidt, who used syringing and boric acid, the suppuration continued. After three weeks a mastoid periostitis, right side, developed with marked fever and severe pain in the head. Thereupon my colleague, Dr. Goldschmidt, referred the patient to me for treatment. By the second day the suppuration on the left side had permanently stopped, on the right there was diminution of the discharge, and a cessation of the signs of inflammation of the mastoid process. On the fifth day of the treatment there was a new development of fever, headache, and tenderness in the mastoid region. The auditory canal was found dry, and no perforation was to be seen. Treatment

\*The powder-blower of Kabreiski, Centralblatt für Chirurgie, 1883, No. 331.

consisted in paracentesis of the drum-membrane, evacuation of pus with the air-douche, syringing with sublimate, and insufflation of calomel. Improvement followed. On the sixteenth day of the treatment complete recovery, perforation closed, and hearing good.

Among the chronic cases cured were some which had lasted for years, and had been repeatedly treated by different methods without success.

I have in order to obtain a basis for comparison, treated patients suffering with an otorrhœa of both sides, with the sublimate and calomel for one ear, and boric acid for the other. For this purpose I have generally selected acute cases as presenting less difference in the local conditions of the two years; yet, although these comparative tests give results favorable to the calomel, I cannot consider them as conclusive, for under similar treatment of both ears, we often observe considerable difference in the duration of the disease on either side; a large number of observations will be necessary to decide the question.

Nevertheless, I hold to my belief that the conversion of the calomel into mercuric chloride in the middle ear does take place. In favor of this view, we have the analogous behavior of calomel when applied to the conjunctival sac; secondly, the efficiency of this remedy in otorrhœa, which admits of no other explanation on account of the insolubility of the calomel; furthermore, the resemblance of the local changes which sometimes occur in the mucous membrane to those produced by the sublimate; and finally the observation made by Dr. A. Gottstein, of a stomatitis after the application to the ear.

15. "*Trephining in the Mastoid and Tympanic Disease.*" Dr. W. J. Wheeler, F. R. C. S. I., reports\* two cases in which he performed this operation and intentionally exposed the dura mater, a procedure considered by otologists to be a great risk. But notwithstanding the great danger, the patients recovered.

16. "*Peroxide of Hydrogen in Mastoid Abscesses.*" Dr. A. E. Prince, of Jacksonville, Illinois (St. Louis Med. and Surgical Journal, March, 1884), reports his employment of the peroxide of hydrogen as a cleansing agent in suppurating cavities, mastoid abscesses, etc. "Though inferior to iodiform as an antiseptic, it has the inestimable quality, like it, of producing little or no irritation when used about tender organs."

17. Dr. Samuel Sexton, in behalf of "*The Better Education of Children with Defective Hearing in*

*Public Schools*" (New York Med. Record, December 20, 1884), says: "Among school children of the poorer class great injustice is being done in permitting children to struggle for an education under the disadvantages arising from deafness, without the aid of methods which experience has shown to be of advantage in such cases."

18. At the New York County Medical Society, January 25, 1885, "*Affections of the Ear Influenced by or Dependent on Malaria and Defective Drainage.*" was the title of a paper read by Dr. O. D. Pomeroy. He quoted extensively from authors who had reported cases of ear disease of supposed malarial origin, including the names of Weber-Liel, Hotz, Vollotini, and others. Drs. Hackley, Simon Baruch, John C. Peters, and Holcombe, discussed the subject to some length.

*Cocaine in Affections of the Ear.* Dr. D. B. St. John Roosa reports his experiments with cocaine on the membrana tympani in a case of tympanic neuralgia, which was relieved in ten minutes after the instillation of the solution. (*New York Medical Record*, October 25, 1884.)

Dr. H. Knapp, in his notes on experiments with cocaine on the mucous membranes, states, "that the removal of polypoid granulations to be almost painless, and in cases of perforations of the drumhead, cocaine anesthetized the mucous membrane drum cavity, but not the drumhead," and also found it to have the same temporary effect on the mucous membrane of the mouth and nose. (*Med. Record*, October 25, 1884.)

*Hydrochlorate of Cocaine in Acute Otitis Causing Deafness from Coryza.\** This form of deafness is directly traceable to nasal, naso-pharyngeal, or pharyngeal disease [of the lining membrane. Plugging of the openings of the eustachian tubes, viewed from a peculiar mechanical standpoint will certainly cause or aggravate deafness. Hence it is of the utmost importance that prompt and efficient means should be used in order to relieve the patient and ultimately cure the disease. The application of a four per cent. solution of the hydrochlorate of cocaine to the nose will cause the swelling from acute coryza to disappear for hours, and if repeated two or three times will entirely relieve the occlusion of the nostrils and check the discharge. The great advantage of this local anæsthetic is, that when necessary we are able to apply local remedies without pain of a more potent character.

"*On the Use of the Solution of Cocaine Hydro-*

\*Dublin Journal of Medical Sciences, October, 1884. Reported in the New York Med. Abstract, November, 1884.

\*The New Local Anæsthetic, Hydrochlorate of Cocaine, etc., pp. 38-39. By Laurence Turnbull, M. D., Ph. G. P. Blakiston, Son & Co. Philadelphia, 188\*, p. 77.

chlorate in *Acute Throat and Ear Disease*.\* November 20, G. B. M., M. D., applied for deafness in both ears. On examination, found the sides of the meatus and lumen filled with separated masses of scales several mm. in length, firmly attached to the parts, which, on removal by the forceps, gave him great pain. He also found the pressure of the ear speculum painful, caused by the inflamed under-surface, which was ready to bleed after the removal of the diseased scales. To obviate this pain and allow the removal of this desquamative material, a 4 per cent. solution of the hydrochlorate of cocaine was instilled into the ear every five minutes for fifteen minutes. The anæsthesia was not complete, as pain was felt during the removal of the offending material, and also when introducing the speculum; still he was able to bear it much better with the solutions. There was great improvement in the hearing.

In a little pamphlet entitled "*Hydrochlorate of Cocaine as an Anæsthetic of the Mucous Membranes of the Pharynx, Larynx, Nose, etc.* (Extrait de la *Révue Mensuel le Laryngologie d'Otologie et Rhinologie*, No. 12, December, 1884). By Drs. E. J. Moure and J. Baratoux, Paris. They state that in acute inflammations of the ear, where we have the advantage to employ the instillation of cocaine, they have obtained favorable results with the three and five per cent. solutions. This medicine having also the property of diminishing the secretions, is useful in catarrh of the nose with hyper-secretions of mucus.

We have also obtained a perceptible amelioration of otorrhœa in two cases which were rebellious to the ordinary treatment (Baratoux). But it is especially as an anæsthetic that the hydrochlorate of cocaine presents advantages, since to anæsthetize the pharynx, larynx, or the other mucous membranes, one or more times is sufficient to paint them with a ten or twenty per cent. watery solution of the hydrochlorate of cocaine. (The cocaine is less soluble in water than the hydrochlorate of cocaine.)

The following is the manner of procedure to obtain this end: After having dipped a brush or a tige wrapped with cotton in this solution, we paint, without exception, all the parts we wish to anæsthetize. At the end of one or two minutes, we test the excitability; if it is not sufficiently diminished, we make a second application. Sometimes we are obliged to repeat the operation four or five times. We obtain an anæsthesia which

lasts from five to ten minutes. When the persons are very excitable, we are obliged to use a strong solution (twenty per cent.).

Thanks to this method, we have been able to remove with ease, by means of the guillotine of Prof. Stoerk (Baratoux), a polypus on the left vocal band of a patient who had at first such reflex accentuation that it was difficult to introduce the mirror into the pharynx without producing nausea.

We have also employed this process in order to extirpate polypus of the nose. I have in like manner removed from the left vocal band of a patient previously operated on by me for polypus of the larynx, covering almost the entire glottic orifice, a pedicle, which its smallness and the spasmodic contractions of the larynx had prevented me from grasping. Thanks to the anæsthesia of cocaine, I can go slowly into the larynx and, I even add, easily grasp the neoplasm. (Moure.)

The galvano-cautery of the tonsils and of the nose is at times very painful. Thanks to painting of the parts with a five per cent. solution, or even a three per cent., the cauterization can be made generally with complete insensibility of the parts.

However, cocaine being toxic\* in very small doses, we think that it is advisable not to repeat too often at the same sitting the application, and to employ at the outset a weak ten per cent. solution.

It must be added that the remedy, in spite of its price, which is excessive (seventeen to eighteen francs per gramme), is destined to play an important part in the therapeutics of the diseases of the larynx, nose, ears, as well as other organs.

In regard to the action of cocaine upon the ear, Dr. M. Landesberg, Philadelphia, says: † "In five instances of 'Earache' in children without any assignable cause, I succeeded in effecting almost instantaneous relief by the instillation of two drops into the external auditory canal.

"In a case of furuncle in the external auditory canal, I persuaded the lady, who was averse to any surgical interference, to allow me to try the new local anæsthetic, of which she had heard so much. Four drops abated the sensibility of the parts to such a degree, that I was able to introduce the probe into the canal without causing pain. In view of this fact she voluntarily permitted the operation, if it had to be at all. I made the incision, she cried out, grasped my arm, and sank into a fainting fit."

\* This is not the case except in large doses.—L. T.

† Reprinted from Proceedings Philadelphia County Medical Society, 1884.

\* See cases, p. 37, "New Local Anæsthetic," etc. By Laurence Turnbull, M. D., 1885.



The following paper on this subject will be found in "The Archives of Otolaryngology," Vol. XIII., Nos. 3 and 4:

1. "The Existence of the Tubercle-Bacillus in Aural Discharge, and its Significance in Clinical Diagnosis." By A. Gottstein, Berlin. Translated by H. T. Hansell, M. D., Philadelphia.

2. "On the Cellular Structures of the Human Organ of Corti." By H. Steinbrügge, Heidelberg. Translated by H. T. Hansell, M. D., Philadelphia.

3. "A Case of Double Labyrinthine Disease after Scarlatina, Favorably Affected by Hypodermic Injections of Pilocarpine." By Prof. S. Moos, Heidelberg. Translated by Dr. I. A. Spalding, Portland, Me.

4. "Acquired Artesia of Both Auditory Passages due to Chronic Eczema." By S. Moos, Heidelberg.

5. "A Peculiar Malformation of the Right Ear with an Intact Labyrinth." By Prof. S. Moos, Heidelberg.

6. "Carcinoma of the Cutaneous-Cartilaginous Portion of the Meatus, with Perforation of the Auricle," etc. By Prof. S. Moos, Heidelberg. Translated by J. A. Spalding, M. D.

7. "Two Cases of Condylomata and One Case of Primary Syphilis of the External Ear." By Dr. J. Zucker, of Berlin. Translated by J. A. Spalding, M. D.

8. "The Results of the Examination of Four Petrous Bones of Two Deaf Mutes." By Prof. Moos and H. Steinbrügge, of Heidelberg. Translated by Wm. Rankin, Jr., M. D., Newark.

9. "On the Comparative Diagnostic Value of Air and Bone Conductors, and of Quantitative Variations in the Perception of High and Low Tones." By Gustav Brunner, M. D., Zurich, Switzerland. Translated by J. A. Spalding, M. D.

10. "A Case of Temporary Sudden Restoration of Hearing after Deafness of Twenty-one Years." By Basil Norris, M. D.

11. "A Case of Objective Noses in Both Ears." By A. R. Baker, M. D., Cleveland, O.

12. "An Improved Form of Eustachian Catheter." By H. Lindo Ferguson, F. R. C. S. I., Dunedin, N. Z.

13. "Two Cases of Deafness from Cerebro-Spinal Meningitis, etc., Ending in Recovery." By H. Knapp, M. D., New York.

14. "Normal and Pathological Anatomy and Histology of the Ear," B. H. Steinbrügge, Heidelberg, and "Pathology and Therapeutics of the Ear," A. Hartmann, Berlin.

Whistles for Audibility of Shrill Notes.\* Mr. Gal-

ton has contrived a small whistle for conveniently ascertaining the upper limits of audible sound in different individuals. He had it made from a brass tube whose internal diameter was less than one-tenth of an inch. A plug is fitted into the lower end of the tube, which can be pulled out or pushed in as much as desired, thereby causing the length of the bore of the whistle to be varied at will. When the bore is long the note is low; when short, it is high. The plug is graduated, so that the precise note produced by the whistle could be determined by reading of the graduations referred to a table (see appendix). On testing different persons, he found there was a remarkable falling off in power of hearing high notes as age advanced. The number of vibrations per second in the note of a whistle or other "closed pipe," depends on its depth. The theory of acoustics shows that the length of each complete vibration is four times that of the depth of the closed pipe, and since experience proves that all sound, whatever may be its pitch, is propagated at the same rate, which under ordinary conditions of temperature and barometric pressure may be taken at 1,120 feet, or 13,440 inches per second—it follows that the number of vibrations in the note of a whistle may be found by dividing 13,440 by four times the depth, measured in inches, of the inner tube of the whistle. The largest whistles suitable for experiments of the human ear have an inner tube of about 0.16 inches diameter. But we cannot be sure of sounding with them a higher note than one of 14,000 vibrations to the second, unless we use tubes of still smaller bore, but Mr. Galton has not succeeded in producing, as in steel rods, a note that would be both shrill and powerful.

Whistles for High Notes. When the limits of audibility are approached by means of the whistle, the sound usually gives place to a peculiar sensation, which is not sound, but more like dizziness, which some persons experience to a high degree. Young people hear shriller sounds than older people, and it is a proverb in Dorsetshire, that no agricultural laborer who is more than forty years old can hear a bat squeak. (This fact Dr. Wollaston discovered many years ago, and he endeavored to show that it varied considerably by means of small pipes, but he was not so successful as Mr. Galton with his whistle.) The power of hearing shrill notes has nothing to do with sharpness of hearing, any more than a wide

\*Inquiries into Human Faculty and its Development. By Francis Galton, F. R. S. New York; Macmillan & Co.

1883, p. 38 (see also appendix.) These whistles are made by Mr. Hawksley & Co., surgical instrument makers, 307 Oxford street, London.

range of the key-board of a piano has to do with the sound of the individual strings. We have our limits (but as I have stated, this can be improved by cultivation.) Mr. Dalby, of London, a distinguished aurist, was presented by Mr. Galton with one of these whistles, which he has employed as I do the steel rods in the diagnosis of defective or impaired hearing, and has come to the same conclusions—that when the power of hearing high notes is wholly lost, the loss is commonly owing to failure in the nerves, but when very deaf persons are still able to hear very high notes if they are sounded with force, the nerves are usually all right, and the fault lies in the lining of the auditory canal.

## CORRESPONDENCE.

### Throat Lump.

EDS. MED. AND SURG. REPORTER:

In reading of the throat and tongue trouble of our distinguished General U. S. Grant, a case in memory comes back to me from war years. Being assigned as Surgeon of the Department of the Monongahela at Pittsburgh, Pa., in 1864 and 1865, a soldier presented himself, complaining of a throat lump. Said he could not eat hard bread, and suffered constant pain in his jaws and head. I at once gave him attention and found the fauces and submaxillary glands, with the excretory ducts of the sublingual glands, tense, painful and much enlarged. I asked him to allow me to open his throat lump, as he described it, which he agreed to, and I made a free incision at the base of the tongue, also in maxillary region over facial artery. I had considerable hemorrhage, but it was controlled by Monsel's solution and compress of cotton. No pus presented as I expected, but on a subsequent examination I detected something foreign, and on adhering to it with a pair of tooth forceps, found and secured a *salivary calculus* of the size of a hickory nut, corrugated along one side, yet very solid and consistent. I found this salivary calculus on the right side of the tongue, and well imbedded under that necessary organ. During my operation he had spasms of the jaws, and I feared tetanus; yet I kept him well etherized, and even after kept him under hypnotic influence for days. His recovery was complete, and what I looked on as a certain malignant cancerous disease proved to be entirely curable by bold and free cutting, and not cauterization and palliative treatment or cancer-cure ointments. I neglected speaking of the irritation of the fifth nerve, occasioning great pain in the fauces in the regions of the parotid, ear, temple and crown of the head, and the excessive secretion of saliva. So much relief followed my cutting, that the offending branch of that nerve was divided. After four years of suffering quietly and alone, relief came to my soldier patient when he had made up his mind to die by choking, and that only a few weeks was allowed to him. I had him discharged

from the U. S. service sound and well, and returned to his home and family.

West Bridgewater, Pa. JOHN C. LEVIE, M. D.

### Pill Irisin Comp.

EDS. MED. AND SURG. REPORTER:—

Some one inquires what the pill "Irisin Comp." is used for, and wants "definite information." The last is the most difficult to give.

I have used some thousands of them, and got in the way of using them because they were *small*, and for various *headaches* which seemed to me to depend on some inaction of the biliary or digestive apparatus, when a mild laxative was indicated, and when the nerves wanted a slight stimulation which needed to be kept up for some weeks. Some other combination might have done as well, but this has had the advantage of convenience, and been very successful when the means previously employed had failed. One pill at night, or night and morning at the first, is the usual dose. I think a half of a grain of hyoscyamus would improve the pill.

Boston, Mass.

E. CHENERY, M. D.

## NEWS AND MISCELLANY.

### Vivisection in Germany.

The Berlin correspondent of the *Brit. Med. Jour.* thus writes:

A highly important order has just been issued by Herr von Gossler, Prussian Minister of Education and Medical Matters, founded on answers received from the medical faculties of all the German universities concerning the question of vivisection. The Minister says that the reports he has received "have strengthened his conviction that experiments on living animals have been resorted to and performed at the German universities in a moderate and permissible manner; and that, side by side with the interests of scientific inquiry and academic teaching, the demands of humanity have been duly observed." But in order to avoid all doubts in this direction for the future, the Minister of Education has laid down the following regulations:

1. Experiments may only be made on living animals for the purposes of serious inquiry or for giving instruction of importance.
2. Experiments on animals are only permissible during lectures so far as they are necessary for the lecturer to explain his subject-matter.
3. The operative preparations for the lecture experiments are, as a rule, to be made before the commencement of the demonstration, and in the absence of those attending the lecture.
4. Experiments on animals may only be performed by the Professors and lecturers, or on their responsibility.
5. Experiments which can be made on the lower animals, without essential prejudice to the result required, are only to be performed on these, and not on the higher animals.
6. In all cases in which it is not absolutely incompatible with the object of the experiment, the animals must be put under the full influence of

anesthetics, in such a manner that the effect of the anesthetics will last for a sufficient time.

Commenting on the subject in an article entitled "Vivisection and Science," in the last number of the *Deutsche Medicinische Wochenschrift*, the editor of this paper points out that the question whether vivisection-experiments were an indispensable means for scientific inquiry, which could not be dispensed with without essential injury to medical science, was unanimously answered in the affirmative by the medical faculties of the German universities. The faculties were asked, secondly, if lectures with vivisection could be abandoned entirely, or partially, without injury? and, with the exception of one, they all replied in the negative. It has, moreover, been shown that the number of animals used for this purpose is relatively extremely small, and that in by far the majority of cases, the operative preparations have been hitherto made before the lectures, and that anesthetics have always been used except where their application would have been prejudicial to the object of the experiment; and, last of all, no case of deliberate and wanton infliction of pain could be brought forward. The author of the article says that the medical faculties of Germany, Austria, and Switzerland, are unanimous on this point, and he concludes as follows:

"We have already pointed out that the prohibition to experiment on animals, now become law in England, despite the testimony of all those questioned on the subject, has injured biological science there in the most perceptible manner in the few years that have passed since this prohibition became the law of the land. The discussion of the last two years, on the etiology of infectious diseases, has shown, with special explicitness, that the English are so far behind the results of inquiry of other nations in this field, that English physiologists and pathologists who occupy themselves with the question, are no longer even in a position to apply a criticism that is at all to the point."

This opinion, however strongly put, justifies the sentence in your article in the *Brit. Med. Jour.* of January 10: "Owing, however, to the efforts of anti-vivisectionists, the valuable researches, begun with so much promise to science, have been arrested in England." Anti-vivisectionists number several supporters in Germany amongst persons of great influence, and endeavors have been made in the daily press, by distorting facts, to utilize all the stores of pathetic oratory to work upon the feelings of the public. The Minister of Education in Prussia had a difficult task to collect all the material, and his decision has shown that he is determined to defend the interests of science.

#### Marion County, Florida, Medical Society.

The Medical Society of Marion County, Florida, was organized in February of this year. Dr. George T. Maxwell, the President, delivered the Inaugural Address, a well-considered essay on the value of medical science.

It gives us pleasure to announce the formation of county medical societies. Would that the physicians of every county in the United States

would devote at least one day each six months to assembling together in such an organization.

#### Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended March 28 1885.

Battle, K. P., assistant surgeon. To proceed to Memphis, Tenn., for temporary duty, March 27, 1885.

#### Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended April 4, 1885.

Murray, R. D., surgeon. Granted leave of absence for one week, March 31, 1885.

Bratton, M. D., assistant surgeon. To proceed to New York, N. Y., for temporary duty, April 2, 1885.

Watkins, R. B., assistant surgeon. To proceed to New Orleans, La., for temporary duty, April 2, 1885.

#### APPOINTMENTS.

The following candidates having passed the examination required by the regulations were appointed assistant surgeons by the Secretary of the Treasury, April 1, 1885, viz.:

William D. Bratton, M. D., of South Carolina, and Ralph B. Watkins, M. D., of Connecticut.

#### Items.

—Dr. J. A. Bolard has been reelected superintendent of the public schools of Millville.

—In the *N. Y. Med. Jour.*, February 28, Dr. A. G. Gerster publishes a paper on the surgical dissemination of cancer.

—The Texas State Medical Association holds its seventeenth annual meeting at Houston, beginning on Tuesday, April 21, 1885.

—The Annual Commencement of the Louisville Medical College was held February 26. Sixty-three graduates received the degree of M. D.

—Gentlemen prominent in the medical profession and business and social circles in Worcester, Mass., are taking steps for the formation of a cremation society.

—In the *N. Y. Med. Jour.*, February 28, Dr. Frank Donaldson, of Baltimore, publishes a paper entitled "City Air and City Life Injurious to Consumptives."

—An examination into cigarette smoking among small boys shows that in a majority of cases parents are to blame. The fact is, mighty few people are fit to have children.

—An English writer points out the probability that a smoky atmosphere is not a wholly unmitigated evil, since its carbon and sulphur must absorb many germs of disease, and tend to prevent the spread of epidemics.

—Dr. Flint is reported as having said that many lives are lost by starvation, owing to an over-estimate of the nutritive value of beef tea and meat juices. In typhus and typhoid fevers, he says, there is no good substitute for milk and eggs.

—Professor Doremus, who works entirely with his left hand, having had his right arm amputated in his youth, is credited with making over \$25,000 per annum by chemical analyses of patent medicines and similar articles.

—The *Med. Record* says that the liquor ammonia anisatus of the Germans should be used more largely than it is in flatulence and pyrosis, in the second stages of bronchitis or pneumonia, and in many states of debility.

—Little Boy—"Please, I want the doctor to come and see mother." Servant—"Doctor's out. Where do you come from?" Little Boy—"What! Don't you know me? Why, we deal with you. We had a baby from here last week."

—An opportunity of studying a case of leprosy has been afforded by Dr. Guttman, who assures the Berlin Medical Society that there can be no doubt that the living bacilli found in the system of leprosy patients are really the cause of the disease.

—Professor Ambrose L. Ranney has been appointed to the Chair of Nervous Diseases in the medical department of the University of Vermont, made vacant by the resignation of Professor W. J. Morton. Professor Ranney will deliver a course of lectures each year in this field in addition to his course upon anatomy.

—The average strength of the French forces in Tonquin during the first six months was 7600, and out of that number 375 died; 82 of wounds received while fighting, 77 of typhoid fever, 73 of intermittent fever, 60 of dysentery, 43 of sunstroke, 17 from accidents, 15 of organic complaints, and 8 of suicide.

—To the Liverpool Medical Institution Dr. Keeling introduced a patient whose scapula had been removed nearly two years before for a tumor involving the bone and surrounding muscles. There had been no return of the disease, and the arm was a fairly useful one.

—In the island of Goa, near Bombay, there is a singular vegetable called "the sorrowful tree," because it only flourishes in the night. At sunset no flowers are to be seen, and yet after half an hour it is full of them. They yield a sweet smell, but the sun no sooner begins to shine upon them than some of them fall off, and others close up; and thus it continues flowering in the night during the whole year.

—Dr. J. W. Flynn writes to the *Med. Record*: "About six years ago I was treating a man, seventy-five years of age, who was suffering from capillary bronchitis, and was doing nicely when gangrenous changes of the distal phalanges of both hands and feet made their appearance, and the lines of demarcation showed in about ten days. After this the patient rapidly failed, and died in comatose condition."

—In Chattanooga, the negro death-rate is more than double that of the whites, and the same is true of Memphis; and yet the census shows that the negroes are increasing more rapidly than the whites. The explanation of this is in the difference between the birth-rates of the two races. A given number of whites have six children born to them in a year, of whom two die before reaching

the age of self-support. The same number of negroes, it is said, will have ten children born in a year, and lose five before they reach the age of self-support. The negroes thus lose two and a half times as many children as the whites, and yet gain upon them in the census figures.

## QUERIES AND REPLIES.

MESSRS. EDITORS:—

I have a lady patient who can't take the slightest dose of quinine without being followed with a most torturing rash. If in a pregnant state, as small a quantity as two grains will, in less than twenty-four hours, produce abortion or miscarriage. Have given it combined with opium, black haw, bromide, sodium, etc.—all failed to prevent the appearance of the rash. Can you, or some of the subscribers to your wide-awake *REPORTER*, give me an altitude?

W. P. M.

*Dr. N., of Pa.*, asks the method of using muriate of cocaine in tenesmus. *Ans.*—Two per cent. solution may be inserted on pledgets of absorbent cotton.

*Dr. J. B. H., of Mich.*—The case you report is quite obscure, and we cannot pronounce upon it from the description you send. We shall be glad to publish it in full if you will write it out.

## MARRIAGES.

BAILEY—ABBOTT.—March 4, 1885, in Williamstown, Vt., by Rev. R. D. Miller, Dr. E. P. Bailey, of Oneida, N. Y., and Mattie Abbott, of Williamstown.

DAVIS—WHIPPLE.—March 25, 1885, at the Methodist Episcopal parsonage, in Plessis, N. Y., by Rev. R. F. Whipple, assisted by Rev. W. Howard, George H. Davis, M. D., of Malone, N. Y., and Nettie L. Whipple, daughter of the officiating clergyman.

MASSEY—STAIRS.—March 25, 1885, in the Arch Street Presbyterian Church, Philadelphia, by Rev. John Scott Sands, Dr. G. Betton Massey and Harriet L. Stairs, both of Philadelphia.

NORTON—SEEL.—Tuesday evening, April 7, 1885, in the Eighteenth Street M. E. Church, in this city, by Rev. Henry Frankland, assisted by Rev. L. B. Brown, Mr. Albert E. Norton, M. D., and Miss Clara J. Seel, all of Philadelphia.

## DEATHS.

BLUNDEN.—April 3, 1885, in this city, Boyle N. Blunden, M. D., in his 28th year.

BURR.—March 30, 1885, in this city, Richard Burr, M. D. aged 66 years.

CURRAN.—Friday, March 27, 1885, in this city, Dr. John P. Curran.

EARLE.—Friday, March 27, 1885, at his residence, No. 245 Harrison street, Brooklyn, N. Y., Dr. Thomas Earl, in the 80th year of his age.

ELDER.—April 5, 1885, in Washington, D. C., Dr. William Elder, in his 79th year.

LITTLE.—Saturday, April 4, 1885, in New York city, Jas. L. Little, M. D., in the 49th year of his age.

MACBRIDE.—April 1, 1885, at No. 2031 North Sixteenth street, this city, Dr. G. Vaughan, son of the late James H. MacBride.

SAWYER.—Tuesday, March 31, 1885, at Bedford, N. Y., Platt R. H. Sawyer, M. D., School Commissioner, in the 51st year of his age.

SNIVELY.—Sunday morning, March 22, 1885, in Brooklyn, N. Y., Joseph Culbertson Snively, M. D., aged 49 years.

SWIFT.—Easter morning, April 5, 1885, at his residence, 54 Lefferts Place, Brooklyn, N. Y., William Swift, M. D.

TOWNSEND.—March 5, 1885, at Bridesburg, Pa., Dr. W. W. Townsend, formerly of Chester county, Pa., in his 78th year.